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Guidelines for Industries

HANDBOOK OF INDUSTRIAL POLICY AND PROCEDURES
AND ANNUAL GUIDELINES FOR INDUSTRIES

1976-77

L.C.

GOVERNMENT OF INDIA
DEPARTMENT OF INDUSTRIAL DEVELOPMENT
MINISTRY OF INDUSTRY AND CIVIL SUPPLIES
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INDIA
New Delhi

The Department of Industrial Development have, since 1973, been bringing out an annual publication entitled "Guidelines for Industries". In this publication, efforts have been made to make available to entrepreneurs, in a single publication, all relevant information in regard to industrial policy of Government as also information on approval systems and procedures connected with the setting up of industrial units. This publication also gives the present status and future prospects in certain industries. The latest available data in respect of such industries is also given in the publication.

We are now happy to release this upto-date version of the "Guidelines" for the current year 1976-77. The salient features of this publication are that it contains all the announcements made by Government in regard to liberalisation of investment procedures for stimulating production in pursuance of item 14 in the 20 point economic programme announced by the Prime Minister. We have also tried to improve the coverage of industries in this publication. It is our hope that the information contained in the book will be of particular benefit to the new, small and medium entrepreneurs in different parts of the country. We trust this volume, like its predecessors, will be found informative and useful. We shall be grateful for suggestions to make this annual publication more useful and effective.

May, 1976

(T. K. Singh)
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PART I
POLICIES AND PROCEDURES

CHAPTER I

INDUSTRIAL POLICY

The basic framework for Government's industrial policy is provided by the Industrial Policy Resolution dated 30 April 1956. The text of this Resolution is in Appendix I.

2. The Resolution emphasises that industrial policy, as other policies, must be governed by the Directive Principles of State Policy enunciated in the Constitution and the more precise direction given to them by Parliament through its acceptance of the socialist pattern of society as the objective of social and economic policy. In order to realise this objective, it is essential to accelerate the rate of economic growth and to speed up industrialisation and, in particular, to develop heavy industries and machine making industries, to expand the public sector, to build up a large and growing cooperative sector and to encourage the widest diffusion of ownership and management in private industry. The Resolution also underlines the need for prevention of private monopolies and the concentration of economic power; the role of cottage and village and small-scale industries in the development of the national economy; the need for balanced industrial development, and other socio-economic objectives.

3. The Resolution classifies industries into three categories having regard to the role which the State will play in each of them:

- (i) industries, the future development of which will be the exclusive responsibility of the State (Schedule 'A' of Appendix I);
- (ii) industries, which will be progressively State-owned and in which the State will generally take the initiative in establishing new undertakings, but in which private enterprise will also be expected to supplement the effort of the State (Schedule 'B' of Appendix I); and
- (iii) all the remaining industries in respect of which future development will, in general, be left to the initiative and enterprise of the private sector.

4. Government have also announced from time to time the policy to be followed by them in respect of industrial licensing under the Industries (Development and Regulation) Act 1951. Government's latest decisions on industrial policy in the context of the approach

to the Fifth Five Year Plan are contained in the Press Note dated 2 February 1973 (Appendix II). The Press Note has clarified that the Industrial Policy Resolution of 1956 will continue to govern Government's policies for achieving the objectives of growth, social justice and self-reliance in the industrial sphere. It will be the Government's objective to maintain a durable framework of licensing and other connected policies consistent with the Resolution.

5. Government's policy approach to industrial licensing is indicated briefly in the succeeding paragraphs.

Public Sector

6. All industries of basic and strategic importance or in the nature of public utility services would be in the public sector. Other industries which are essential and require investment on a scale which only the State, in the present circumstances, could provide, have also to be in the public sector. In the context of the approach of the Fifth Five Year Plan, the State will have to take direct responsibility for the future development of industries over a wide field in order to promote the cardinal objectives of growth, social justice, self-reliance and satisfaction of basic minimum needs.

Policy for Small-scale Industries

7. The manufacture of certain articles (as listed in Schedule I of Appendix IV) is reserved for units in the small-scale sector, *i.e.*, those with investment in machinery and equipment up to Rs. 10 lakhs, and in the case of ancillary industries up to Rs. 15 lakhs. This policy of reservation will be continued and the area of such reservation will be extended, consistent with the potentialities and performance of the small-scale sector.

Small and Medium Entrepreneurs

8. Government's policy is to encourage competent small and medium entrepreneurs in all industries. Such entrepreneurs will be preferred *vis-a-vis* larger industrial houses and foreign majority companies in the setting up of new capacity. Cooperatives and small and medium entrepreneurs will be encouraged to participate in the production of mass consumption goods, with the public

sector also taking an increasing role. The 'delicensed' sector of investments up to Rs. 1 crore is meant primarily for small and medium entrepreneurs. Government have also announced their intention to enlarge and intensify a variety of positive measures to promote the growth of small and medium entrepreneurs.

Larger Industrial Houses

9. Larger industrial houses *i.e.*, all undertakings which by themselves or in inter-connection with other undertakings have assets not less than Rs. 20 crores (falling under Section 20(a) of the Monopolies and Restrictive Trade Practices Act 1969) will be eligible to participate in and contribute to the establishment of industries in the list included in Appendix I to the Press Note dated 2 February 1973 (*vide* Appendix II), along with other applicants, provided that the item of manufacture is not one that is reserved for production in the public sector or in the small-scale sector. They will ordinarily be excluded from the industries not included in this list except where production is pre-dominantly for exports. In the latter case, they will have to undertake a minimum export obligation of 60 per cent or more of the new or additional production which should be achieved within a maximum period of three years. In regard to articles which have been reserved for the small-scale sector, the minimum export obligation will be 75 per cent of the new or additional production, to be achieved within a maximum period of three years. Government will, however, ensure that the remainder quantity available for the domestic market is not so large as to swamp the market.

Foreign Concerns

10. Foreign concerns (*i.e.*, foreign companies, their branches or subsidiaries or companies in which more than 50 per cent of the paid up equity is held directly or

indirectly by foreign companies, their branches or subsidiaries or by foreign nationals or non-resident Indians) will be eligible to participate in and contribute to the establishment of industries in the same manner as larger industrial houses. Their investments will also be subject to the guidelines on the dilution of foreign equity (*vide* Press Note in Appendix XIV) and will be examined with special reference to technological aspects, export possibilities and the over-all effect on the balance of payments.

Joint Sector

11. Government's policy regarding the joint sector is derived from the Industrial Policy Resolution 1956 and the objective of reducing the concentration of economic power. In appropriate cases, the Central and State Governments have taken equity participation either directly or through their Corporations with private parties. Some joint sector units have come up in this way. This type of joint sector unit is a device which may be resorted to in specific cases having regard to the production targets of the Plan. Each proposal for establishing a joint sector unit of this nature will have to be judged and decided on its merits in the light of Government's social and economic objectives. The joint sector will also be a promotional instrument, as for instance, in cases where State Governments go into partnership with new and medium entrepreneurs in order to guide them in developing a priority industry.

12. Government have clarified that the joint sector will not be permitted to be used for the entry of larger houses, dominant undertakings and foreign companies in industries in which they are otherwise precluded on their own. In all the different kinds of joint sector units, the Government will ensure for itself an effective role in guiding policies, management and operations, the actual pattern and mode being decided as appropriate in each case.

CHAPTER II

INDUSTRIAL LICENSING UNDER THE INDUSTRIES (DEVELOPMENT AND REGULATION) ACT 1951

I. AREA OF LICENSING

Coverage of the Act

The provisions of the Act apply to all industrial undertakings manufacturing any of the items included in the First Schedule to the Act which is reproduced in Appendix III. These industries are known as 'Scheduled Industries'.

2. The Act applies only to industrial undertakings which are defined as such under the Act. These are undertakings pertaining to a scheduled industry carried on in one or more *factories* by any person or authority including the Government.

3. For the purposes of the Act, a *factory* means any premises including the precincts thereof in which a manufacturing process is carried on—(i) with the aid of power provided 50 or more workers are working or were working there on any day of the preceding 12 months; (ii) without the aid of power provided that 100 or more workers are working or were working there on any day of the preceding 12 months and provided further that in no part of such premises any manufacturing process is being carried on with the aid of power.

Scope of Licensing under the Act

4. A licence is a written permission from Government to an industrial undertaking to manufacture specific articles included in the Schedule. It includes particulars of the industrial undertaking, its location, the articles to be manufactured, their capacity on the basis of maximum utilisation of plant and machinery and other appropriate conditions which are enforceable under the Act. It is also subject to a validity period within which the licensed capacity should be established.

5. Under the provisions of the Act, a licence is necessary for:

- (i) establishing a new industrial undertaking (Sec. 11);
- (ii) taking up the manufacture of a "new article" in an existing industrial undertaking (Sec. 11A) (Please see paragraph 6 below for what constitutes a "new article");

(iii) substantially expanding the capacity of an industrial undertaking in an existing line of manufacture (Sec. 13) (Please see paragraph 7 below for what constitutes "substantial expansion");

(iv) carrying on the business of an existing industrial undertaking to which licensing provisions of the Act did not originally apply on account of an exemption order issued by the Government and became applicable thereafter as a result of cancellation of the exemption order [Sec 29B(2)] and under certain other circumstances as provided in the Act (Sec. 13). Such licences are referred to as COB licences; and

(v) changing the location of an existing industrial undertaking (Sec. 13).

New Article

6. "New article" means any item of manufacture in a Scheduled industry other than those specified in the registration certificate or licence issued to the undertaking. It also includes any article which bears a mark as defined in the Trade Marks Act 1940 or which is the subject of a patent if at the date of registration or issue of the licence or permission, as the case may be, the industrial undertaking was not manufacturing or producing such article bearing that mark or which is the subject of that patent.

Substantial Expansion

7. In accordance with Government's announcement made in October 1966 industrial undertakings can increase the production of articles for which they were licensed or registered up to 25 per cent of the capacity so licensed or registered without obtaining a substantial expansion licence, provided that certain conditions are fulfilled, viz., (a) no additional plant and machinery is installed except minor balancing equipment procured indigenously; (b) no additional expenditure of foreign exchange is involved; and (c) the extra production does not occasion any additional demand for scarce raw materials. However, the industrial undertakings which

had got their licences endorsed for increased capacity in terms of relaxations for fuller utilisation of capacity allowed in the case of 65 specified industries in 1972 are not entitled to this margin of 25 per cent.

Maximum Utilisation of Plant and Machinery

8. It is desirable that installed capacities in all cases are as far as practicable, allowed to be utilised to the fullest possible extent. Government have, therefore, decided that industrial undertakings, which still hold industrial licences, specifying single or double shift basis, may apply for the endorsement of their licences allowing for the maximum utilisation of plant and machinery, and that such requests be considered on the basis of a special procedure and allowed on the merits of the case.

The industrial undertakings concerned may apply, with 5 spare copies, superscribed "endorsement of licences on maximum utilisation basis", and addressed to the Joint Secretary concerned in the Administrative Ministry. There is no prescribed form for this purpose, but the application should give details of the industrial undertakings, the particulars of the item and the capacity as shown in the licence, the capacity on maximum utilisation basis, the details of imported and indigenous raw material requirements, and the actual production of the unit during the last three years. The details of the industrial undertaking should include the names of directors/proprietors of the undertaking, the fact whether the undertaking is registered under the MRTP Act or has received a notice requiring such registration under the Act, and the details of the non-resident shareholding, if any, in the company. The application should be accompanied with a photostat copy of the relevant industrial licence. While examining such requests, Government will take into consideration the relative priority of the industry, the availability of imported and scarce indigenous raw materials, and the eligibility of the parties to participate in such industries in accordance with the industrial licensing policy of February 1973. In allowing endorsement of the capacities on maximum utilisation basis, the Government may stipulate such conditions, as to exports or distribution, as may be considered appropriate. The Press Note of 28 January, 1975 issued in this connection is at Appendix XXXI (a). This facility has also been extended to units registered with the technical authorities and also with the Directorates of Small Scale Industries. A Press Note issued on 7 August, 1975 in this connection is at Appendix XXXI (b).

Permission to Produce in Excess of Licensed Capacity

9. Government have decided that entrepreneurs, who do not come within the purview of the Monopolies and Restrictive Trade Practices Act, 1969 (54 of 1969)

and/or the Foreign Exchange Regulation Act, 1973 (46 of 1973), may be allowed to utilise their installed capacities without limit even though this may be in excess of their licensed capacity in 29 specified industries. This announcement was made through a Press Note issued on 25 October, 1975 which is reproduced at Appendix XXXIII. This facility is subject to the condition that the article of manufacture shall not be an article reserved for development in the small scale sector and that the industrial undertaking will not install additional machinery either indigenous or imported.

This facility will also be available to industrial undertakings coming within the purview of Monopolies and Restrictive Trade Practices Act and Foreign Exchange Regulation Act provided the excess production is exported or sold in accordance with the directions of the Government. Such undertakings would not be exempted from the operation of the licensing provisions, but a simplified procedure has been evolved to consider their applications for recognition of utilisation of their installed capacity. A Press Note issued on 4 November, 1975 outlining the procedure for the submission and disposal of such applications is at Appendix XXXIV.

Recognition of Additional Capacities as a Result of Replacement and Modernisation of Equipment

10. Government have decided that in case where increase in output is the direct consequence of replacement of old equipment, the necessary amendment in the industrial licence will be granted liberally and on the basis of a special procedure, provided that such replacement or modernisation of equipment does not result in any encroachment of products reserved for development in the small scale sector and that there is no net increase in the outgo of foreign exchange. Where the replacement is by way of imported equipment, requiring prior approval of the CG Committee, the CG Committee itself will accord approval for increase in capacity arising from replacement or modernisation after satisfying itself that the above conditions have been fulfilled and that the proposed replacement or modernisation does not lead to any distortion of the plan priorities or market shares. In the case of replacement by way of indigenous equipment, Joint Secretary concerned with the industry in the Administrative Ministry is authorised to take a final decision on such proposals. A Press Note issued on 21 August, 1975 announcing this liberalisation is at Appendix XXXV.

Automatic Growth of Capacity Allowed to Selected Engineering Industries

11. Industrial undertakings engaged in 15 specified engineering industries and fulfilling the following con-

ditions can increase their capacity at the rate of 5 per cent per annum and upto a limit of 25 per cent in a plan period without the requirements to obtain a 'substantial expansion' licence under the Industries (Development and Regulation) Act:

- (i) The product mix should not conflict with the items reserved for the small scale sector;
- (ii) The investment requirements should be taken care of by the concerned undertaking itself and the financing institutions should not be approached for any long term capital loans, etc;
- (iii) No import of capital equipment should ordinarily be involved but where import of capital goods is envisaged, Government would examine whether suitable export obligation should be imposed;
- (iv) The facility of automatic growth would not be extended to undertakings having subsisting foreign collaboration agreements with restrictive clauses inhibiting exports, unless such clauses are removed;
- (v) The industrial undertaking is not dominant in the line of manufacture and also that the capacity utilisation in the concerned undertaking is satisfactory;
- (vi) The concerned industrial undertaking should also ensure that in the process of utilising this facility, the foreign exchange earnings by way of exports are substantially higher than any outgo by way of royalty, dividends, etc., if any.

Any increase in capacity under this facility will be over and above the normal permissible limit of 25 per cent in production over the authorised/licensed capacity. The Press Note dated 21 August, 1975 issued by Government announcing details of this facility is at Appendix XXXVI.

Utilisation of Results of Inhouse Research and Development for Commercial Exploitation

12. Government have decided that industrial undertakings (other than those coming within the purview of the Monopolies and Restrictive Trade Practices Act and foreign companies as defined under Foreign Exchange Regulation Act) may be allowed to set up capacity based on the results obtained from their research and development efforts. These undertakings would, however, be required to obtain industrial licences in terms of existing statutory provisions, for establishment of capacity to be set up by them as a result of their own research and development efforts.

Where an undertaking is covered by Monopolies and Restrictive Trade Practices Act or is a foreign company as defined in Foreign Exchange Regulation Act, it can undertake research and development in areas covered by Appendix I to the Industrial Licensing Policy

Statement of February, 1973 (Appendix II) and such proposals for setting up industrial units may be considered by Government on merits. But, in case an undertaking covered by Monopolies and Restrictive Trade Practices Act or a foreign company seeks to embark upon research and development activity not covered by Appendix I to Government's Policy Statement of February, 1973, such undertakings will have to obtain prior approval of the Department of Science and Technology before taking up research and development in that field. The Press Note dated 21 August, 1975 containing announcement of Government in this connection, is at Appendix XXXVII.

Delicensing of Industries set up with Technology Developed by National Laboratories

12A. In order to encourage commercial exploitation of technology developed by National Laboratories in the country, it has been decided that henceforth industrial undertakings, other than those falling within the purview of the MRTP Act and FERA which take up the manufacture of any item based on the technology developed by any of the laboratories established by the Council of Scientific and Industrial Research and laboratories approved by the Department of Science and Technology will be exempted from the licensing provisions of the IDR Act. This facility will also be available in respect of sponsored research undertaken by National Laboratories on behalf of industrial undertakings, in respect of projects approved by the Department of Science & Technology having due regard to their priority and relevance to economy.

The above facility will be subject to the condition that the item of manufacture is not one reserved for development in public sector/small scale sector or is governed by special regulation. The Press Note dated 7 March, 1976 containing announcement of Government in this connection is at Appendix XXXVIII.

Exemptions from Licensing

13. The Act empowers the Central Government to exempt, under certain circumstances and subject to such conditions as it may think fit to impose, any industrial undertaking or class of industrial undertakings or any scheduled industry or class of scheduled industries from the operation of all or any of the provisions of the Act or of any rule or order made thereunder (Sec. 29B). Under this provision, exemption from the licensing provisions of the Act have been granted to certain categories of industrial undertakings on the basis of investments involved in them, the nature of the industry, the foreign exchange requirements, etc. The exemption limit which was fixed at Rs. 10 lakhs of investment in land, building and machinery in February 1960 was increased to

Rs. 25 lakhs in January 1964 and upto Rs. 1 crore in February 1970.

14. The current provisions for exemption from licensing are governed by a notification issued by Government on 16 February 1973 as amended by notifications issued on 18 June 1973, 31 October 1973, 26 February 1974 (2 Notifications), 29 August 1974, 12 February 1975, 19 May 1975, 21 July 1975, 13 November 1975 and 19 November, 1975. The notification incorporating these amendments is reproduced in Appendix IV. The applicability of exemptions from licensing under this notification is explained in the following paragraphs. While this is the present position it must be noted that the notification is subject to amendment with prospective effect in the light of circumstances.

Small-scale and Ancillary Units

15. *Small-scale units* are undertakings having investments and fixed assets in plant and machinery not exceeding Rs. 10 lakhs. *Ancillary units* are Undertakings having investments in fixed assets in plant and machinery not exceeding Rs. 15 lakhs and engaged in (a) manufacture of parts, components, sub-assemblies, toolings or intermediates; or (b) rendering of services and supplying or rendering, or proposing to supply or render 50 per cent of their production or the total services, to other units for production of other articles.

16. Small-scale units and ancillary units are exempt from licensing provided that the following conditions are satisfied:

(i) The undertaking should *not* belong to one or other of the following categories:

(a) Undertakings covered by section 20(a) of the Monopolies and Restrictive Trade Practices (MRTP) Act 1969 *i.e.*, undertakings whose own assets or whose own assets along with the assets of interconnected undertakings are not less than Rs. 20 crores.

(b) Dominant undertakings covered by section 20(b) of the MRTP Act 1969.

(c) Undertakings belonging to 'foreign concerns' *i.e.*, foreign companies, their branches or subsidiaries or companies in which more than 50 per cent of the paid up equity is held directly or indirectly by foreign companies, their branches or subsidiaries or by foreign nationals or non-resident Indians.

(ii) The item of manufacture involved should *not* relate to one or other of the following category of industries:

(a) Industries listed in Schedule A of the Industrial Policy Resolution 1956. The list of these industries is in Schedule III to Appendix IV.

(b) Specified Industries subject to special regulation *viz.*,

- Coal;
- Textiles (including those dyed, printed or otherwise processed) manufactured, produced or processed on powerlooms;
- Milkfoods;
- Malted foods;
- Roller flour milling;
- Oil seed crushing;
- Vanaspati;
- Leather;
- Matches; and
- Distillation or brewing of alcoholic drinks.

Undertakings other than Small-scale and Ancillary Units in the Delicensed Sector

17. Undertakings *other than small-scale units and ancillary units* can invest in fixed assets in land, buildings, plant and machinery for establishing a new industrial undertaking or for manufacturing a new article or for effecting substantial expansion provided that such investments do not exceed Rs. 1 crore and provided that the conditions outlined in paragraph 18 below are satisfied. The Rs. 1 crore limit is an aggregate investment limit for such investments which may be made for one or more of these purposes in one or more stages. The value of fixed assets in terms of land, buildings, plant and machinery will be taken at the original cost of their acquisition. If the land, buildings, plant or machinery are taken on rent or otherwise held on non-ownership terms, the capitalised value will be taken into account. The value of all productive equipment including tools and dies, laboratory and testing equipment, equipment for the generation and distribution of electricity, equipment for the provision of plant utilities, air-conditioning and steam generation equipment will be taken into account. Other equipment such as trucks and office equipment and the value of land and buildings in respect of housing colony for workers will be excluded.

18. The conditions to be met for the investments under paragraph 17 above to be eligible for exemption from licensing are the following:

(i) The additional investment along with the original investment in an undertaking should *not* exceed Rs. 5 crores.

(ii) The undertaking should *not* belong to one or other of the following categories:

(a) Undertakings covered by section 20(a) of the Monopolies and Restrictive Trade Practices (MRTP) Act 1969 *i.e.*, undertakings whose

- own assets or whose own assets along with the assets of interconnected undertakings are not less than Rs. 20 crores.
- (b) Dominant undertakings covered by section 20(b) of the MRTP Act 1969.
- (c) Undertakings belonging to 'foreign concerns' *i.e.*, foreign companies, their branches or subsidiaries or companies in which more than 50 per cent of the paid up equity is held directly or indirectly by foreign companies, their branches or subsidiaries or by foreign nationals or non-resident Indians.
- (iii) The item of manufacture involved should *not* relate to one or other of the following categories of industries:
- (a) Industries listed in Schedule A of the Industrial Policy Resolution 1956.
- (b) Specified industries subject to special regulation *viz.*,
- Coal;
 - Textiles (including those dyed, printed or otherwise processed) manufactured, produced or processed on powerlooms;
 - Milk foods;
 - Malted foods;
 - Roller flour milling;
 - Oil seed crushing;
 - Vanaspati;
 - Leather;
 - Matches; and
 - Distillation or brewing of alcoholic drinks.
- (c) Other specified industries *viz.*,
- Manufacture of all qualities of steel from electric furnaces based on scrap;
 - Iron and steel pipes and tubes and stainless tubes;
 - Bright bars;
 - Tin containers and metal containers;
 - Drums and barrels;
 - Wires of mild steel, special steel and alloy steel-coated and uncoated;
 - Re-rolling of steel, including manufacture of hot rolled bars/rods and sections using billets or re-rollable scrap as raw material and also cold rolled steel strips and box strap-pings.
 - Non-ferrous semis, alloys, flat products and extrusions excluding aluminium semis;
 - Plastic processed goods;
 - Industrial gases;
 - Steel forgings.
 - AAC/ACSR conductors; and
 - Formaldehyde.

- (d) Items reserved for production in the small-scale sector. Items which are currently reserved for production in the small-scale sector are reproduced in Schedule I to Appendix IV.
- (iv) The proposed investment should *not* require foreign exchange in excess of any of the following limits:
- (a) 5 per cent of the ex-factory value of annual production or Rs. 5 lakhs whichever is less for the import of raw materials (other than steel and aluminium) used in the manufacturing activity in any year.
- (b) 10 per cent of the ex-factory value of annual production or Rs. 5 lakhs whichever is less in any year after three years of the commencement of production for the import of components used in the manufacturing activity.

Exemptions from Licensing Provisions

19. Government have decided to exempt from normal industrial licensing requirement, proposals from entrepreneurs who do not fall within the purview of the Monopolies and Restrictive Trade Practices Act or of Foreign Exchange Regulation Act, and have permitted them to establish industrial capacities based on indigenous equipments and local raw materials and also to utilise to full extent the existing installed capacities. Accordingly, proposals for establishment of new undertakings, substantial expansion and manufacture of new articles from entrepreneurs not coming within the purview of the Monopolies and Restrictive Trade Practices Act or Foreign Exchange Regulation Act are exempted from the licensing provisions of the Industries (Development and Regulation) Act in respect of 21 specified industries with effect from 1 November, 1975. This facility is available subject to the conditions that the industrial undertaking shall not require imported raw material, imported capital goods, or foreign collaboration and will not take up the manufacture of an item reserved for development in the small scale sector. The Press Note issued on 25 October, 1975 in this connection is at Appendix XXXIII.

Where an Industrial Licence is not Necessary

20. To sum up, an industrial licence under the Act will not be necessary in the following cases:

- (i) If the item of manufacture relates to an industry which is not included in the First Schedule to the Act (*vide* para 1 above).
- (ii) If the proposed manufacture is to be carried on in a factory which does not come under the definition reproduced in paragraph 3 above.
- (iii) If the items of manufacture do not fall within

the definition of 'new articles' in paragraph 6 above.

- (iv) If the proposed expansion to an existing unit falls within the ambit of paragraphs 7-11 above.
- (v) In the case of small-scale units and ancillary units subject to the conditions outlined in paragraph 15 and 16 above.
- (vi) In the case of other units in the delicensed sector of investment up to Rs. 1 crore subject to conditions outlined in paragraph 18 above.
- (vii) In the case of industrial units in the delicensed sector as outlined in paragraph 19 above.

Registration

21. Undertakings which are exempted from licensing are expected to register themselves with the Directorate General of Technical Development following the procedure outlined in Appendix V.

22. Undertakings which are exempted from licensing may require foreign collaboration approvals and capital goods clearance. If so, they may apply for the same according to the prescribed procedure for such approvals to the Secretariat for Industrial Approvals. The necessary clearances will have to be obtained before registration is accorded.

II. PROCEDURES FOR INDUSTRIAL LICENSING

The Licence

23. The licensing provisions of the Act apply to industrial undertakings set up by any person or authority including Government. If a new company has to be formed, the industrial licence will, in the first instance, be issued in the name of the applicant, and later, when the company has been formed, necessary endorsement to that effect will be made in the licence.

Application Forms and Filing of Applications

24. An application for an industrial licence has to be made in the appropriate form prescribed under the Registration and Licensing of Industrial Undertakings Rules 1952.

25. *Form IL* is to be used for licences required for new undertakings, manufacture of new articles in an existing industrial undertaking and for substantial expansion. *Form IL* is reproduced in Appendix VI.

26. Applications for carrying on business (COB) should be made in Form 'EE' as given in Appendix VII. Applications for changing the location of an existing industrial undertaking (shifting) should be made in Form 'E' as given in Appendix VIII.

27. Specimen copies of these forms can be had free of cost from the Entrepreneurial Assistance Unit, Secretariat for Industrial Approvals, Gate No. 13, Udyog Bhavan, New Delhi-110011. They can also be obtained from any of the authorised dealers in Government publications. Applicants are also free to type or stencil

the forms and to use spare sheets, where necessary.

28. Applications for industrial licences should be addressed along with 10 spare copies to the Secretariat for Industrial Approvals (Central Receipt and Despatch Section), Department of Industrial Development, Gate No. 13, Udyog Bhavan, New Delhi-110011 with a treasury challan of Rs. 500/- towards the licensing fee. The amount should be deposited in any offices of the Reserve Bank of India or State Bank of India or in any Government Treasury under the Head of Account "120 Industries,—A General—Licence Fees".

29. Applicants are advised that it is in their own interest to furnish accurate and complete information against all the columns in the application forms. Form IL contains details explanatory notes which are designed to help applicants in filling it up. Incomplete applications will be returned to the applicants by the Secretariat for Industrial Approvals for resubmission after rectification of deficiencies.

30. Applicants are advised to submit separate applications as far as possible in respect of items of manufacture which fall under different sub-groups listed in the First Schedule to the Industries (Development and Regulation) Act 1951 to facilitate speedy processing. In cases where this is not possible, they are advised to submit sufficient number of additional copies of applications having regard to the number of sub-groups in the First Schedule which are involved in the proposal.

31. Applicants who are registered under section 26 of the Monopolies and Restrictive Trade Practices Act 1969 should necessarily submit their application under the MRTP Act 1969 along with their industrial licence application, or in the alternative, clearly state the reasons for not submitting the MRTP application. Applications under the MRTP Act 1969 may be submitted directly to the Department of Company Affairs and a copy may be furnished along with the industrial licence application to the Secretariat for Industrial Approvals.

The New Approval Procedures

32. Government have announced a streamlined system for the issue of industrial approvals with effect from 1 November, 1973 in respect of applications made on or after that date. The Press Note dated 31 October, 1973 issued in this regard is reproduced in Appendix IX.

33. The essential objective of the new system will be to issue various clearances within definite time targets. Letters of intent, foreign collaboration approvals and capital goods clearances are proposed to be issued within 90 days of the receipt of applications in each case. In MRTP cases, it is proposed to give a clearance within 150 days having regard to the provisions of the

M RTP Act 1969. It is also the desire of Government that, wherever possible, entrepreneurs should be encouraged to come forward with simultaneous applications for industrial licence and, as may be required, for foreign collaboration approval and capital goods clearance as well. In such composite or simultaneous cases, the time target will be 120 days for a simultaneous disposal which will cover the licence, foreign collaboration and capital goods applications. Where, in addition, an MR TP clearance is also involved, the time target will be 150 days.

Special Procedure for Diversification in Machinery Industries

34. The present facilities for diversification, without having to obtain an industrial licence are subject to certain restrictions as to foreign exchange requirements, the status of the entrepreneurs, etc. Government have now decided that, in addition to such facilities, machinery industries may be allowed full freedom for diversification of their production, within the group of machinery industries and within the overall licensed capacity, on the basis of a special approval procedure. Accordingly, an industrial undertaking currently holding a licence for the manufacture of one or more items falling under the Schedule Industry—Industrial machinery will be eligible to undertake the manufacture of any other item falling under the same scheduled industry, within the existing overall licensed capacity for such items. For this purpose, the Joint Secretary in-charge of Industrial Machinery in the Department of Heavy Industries has been authorised to receive applications for such diversification and to make the necessary endorsements in the industrial licences. Entrepreneurs can submit applications for this purpose in Form IL (5 copies) to the Joint Secretary (Industrial Machinery), Department of Heavy Industry, Udyog Bhavan, New Delhi-110011. It is the intention to deal with such applications for diversification speedily and to give them a final disposal within a period of 2 months. The Press Note dated 4 March 1974 issued by Government in this regard will be found in Appendix X (a).

Special Facilities for Diversification in Machine Tool Industry

35. Government have also allowed special facilities to all industrial undertakings currently holding a licence for the manufacture of one or more items falling under the scheduled industry No. 9 “Machine Tools” to undertake the manufacture of any other item falling under the same scheduled industry within the overall licensed capacity for such items, subject to the conditions that the items to be diversified are not reserved for the Small Scale Sector. The procedure for endorsing the industrial licences for such diversification is the same as

explained in paragraph 34 above. The Press Note of 19 October, 1974 issued by Government in this respect is given in Appendix X(b).

Facilities for Diversification in Machinery Industries by Machine Tools Manufacturers and Vice Versa

36. Government have now announced that machinery and machine tools industries may be allowed full freedom for diversification of production within the group of their range of products and within the overall licensed capacity of the undertaking. Any industrial undertaking currently holding a licence for the manufacture of one or more items falling under the scheduled industries “8—Industrial Machinery” or “9—Machine Tools” will be eligible to undertake the manufacture of any item falling under these two scheduled industries within the existing overall licensed capacity for such items, subject to the condition that the items to be diversified do not fall within the list of articles reserved for the Small-Scale Sector. The procedure for endorsing such licences for diversification is also the same as explained in paragraph 34 above. The Press Note dated 25 January, 1975 issued by Government in this connection is reproduced in Appendix X(c).

Diversification in Electrical Equipment Industry

37. Government have decided to extend facilities for diversification to the industries covered under the scheduled industry No. “5-Electrical Equipment—(1) Equipment for generation, transmission and distribution of electricity including transformers and (2) Electrical Motors” subject to certain exceptions. Accordingly, any industrial undertaking currently holding a licence for the manufacture of one or more items falling under the scheduled industry 5(1) “equipment for generation, transmission and distribution of electricity including transformers” and 5(2) “electrical motors” will be eligible to undertake the manufacture of any other item falling under the same sub-schedule within the existing overall licensed capacity for such items, subject to the following exceptions:

- (a) power generation equipment;
- (b) transformers (including CTs and PTs) and switchgear in the higher ranges above 220 KV;
- (c) electric motors in the range above 1000 HP.

The procedure of endorsing the industrial licences for such diversification is the same as explained in paragraph 34 above. Applications for diversification in items falling under the scheduled industry 5(1) “equipment for generation, transmission and distribution of electricity including transformers” will be received and disposed of in the Department of Heavy Industry, while applications for diversification in items falling under the scheduled industry 5(2) “electrical motors” will be received and disposed of by the concerned Joint Secre-

tary in the Department of Industrial Development, Udyog Bhawan, New Delhi. Copies of the Press Notes dated 12 March, 1975 and the 9 April, 1975 issued in this regard are at Appendices 10(d) and 10(dd).

Diversification in Steel Castings Industry

38. Government have decided that steel castings industry may be allowed full freedom for diversification of production for manufacture of steel ingots within the overall licensed capacity of the undertaking on the basis of a special approval procedure. An industrial undertaking currently holding a licence for the manufacture of steel castings falling under the scheduled industry I(A) (3) "Iron and Steel Castings and forgings" will be eligible to undertake the manufacture of steel ingots within the existing overall licensed capacity. The Joint Secretary in charge of foundry industry in the Ministry of Industry and Civil Supplies has been authorised to receive applications for such diversification and to take a final decision thereon. This facility will be available to all types of undertakings. A copy of the Press Note dated the 9 April, 1975 issued in this connection is reproduced in Appendix 10(e).

Facilities for Fabrication of Cement Machinery by Cement Manufacturers

39. Government has now decided that a producer of cement may be permitted to fabricate equipments of cement machinery required for captive use provided the party has got the necessary facilities to take up the manufacture of such equipments. This facility will be subject to the stipulation that the level of import assistance for taking up such fabrication of equipments shall in no case exceed the level which is available to the established cement machinery manufacturers. Before taking up the manufacture of cement machinery under this dispensation, the manufacturers will have to satisfy the Government that the machinery is, in fact, required for their own use for production of cement and will have to get a special authorisation to manufacture such machinery.

A copy of the Press Note dated 17 May, 1975, issued in this connection is at Appendix 10(f). The procedure for consideration of applications received under this facility are also given in this Press Note.

Diversification in Steel Forging Industry

40. Government have decided that all industrial units which have been licensed or registered for the manufacture of iron and steel forgings, falling under item IA(3) of the first schedule of the Industries (Development and Regulation) Act, are permitted to manufacture flanges, rings, elbows, tees, bends, etc. falling under item IA(5) and IA(7) of the first schedule of the Industries (Development and Regulation) Act,

including in finish machined condition. This facility will be permissible to all the licensed and registered units subject to the condition that the diversification does not envisage installation of any imported machinery, and is within the existing overall licensed capacity of the undertaking. A copy of Press Note dated 7 July, 1975 issued in this connection is reproduced at Appendix X(g).

Facilities for Diversification in Steel Ingot Industry

41. Government have decided that the electric furnace industry having the facility of manufacturing steel ingots/billets may be allowed full freedom for diversification of production for the manufacture of steel castings in the weight range of 10 to 20 tonnes within their overall licensed capacity. A simplified procedure has been evolved for the disposal of applications received for such diversification. The procedure for the receipt and disposal of such applications is out-lined in Press Note dated 18 December, 1975 which is reproduced at Appendix X(h).

Facilities for Diversification in Passenger Car Industry

42. In consideration of the acute fall in demand and consequent problems faced by Passenger Car Industry, Government have decided that undertakings engaged in the manufacture of passenger cars covered under Schedule Industry 7(5) may be allowed full freedom for diversification of their production excluding items reserved for development in the small scale sector, within the group of industries falling under Schedule 7(5) and also industries falling under Schedule 8—Industrial Machinery and Schedule 9—Machine Tools, within the overall licensed capacity of the undertaking. A simplified procedure has been evolved for the disposal of such applications. The procedure for the receipt and disposal of such applications has been outlined in Press Note dated 3 January, 1976 which is reproduced at Appendix X(i).

Facility of Diversification in Non-ferrous Alloys and Semis Industries

43. Government have decided that existing manufacturers in the non-ferrous and alloys industries holding registration certificates under section 10 of the Industries (Development and Regulation) Act may be permitted to diversify into such other types of non-ferrous alloys, semis, extrusion, etc., which they may not have been producing earlier, subject to the following conditions being satisfied:

- (i) Such production will take place within their overall entitlement of foreign exchange.
- (ii) No additional imported plant and machinery will be required to be installed for this purpose.

- (iii) No additional imported raw material will be permitted.
- (iv) The production will be within the overall generic head under which they have been registered under the Industries (Development and Regulation) Act.

This facility will be available to all types of undertakings. The procedure for the receipt and disposal of such applications has been outlined in Press Note dated 9 February, 1976 which is reproduced at Appendix X(j).

Letters of Intent

44. If an application is approved and further clearances (such as foreign collaboration and capital goods imports) are not involved and no other prior conditions have to be fulfilled, an industrial licence is issued to applicant. In other cases, a letter of intent is issued. A specimen form of the letter of intent is in Appendix XI.

45. If it is proposed to reject the application, the tentative decision of the Government to this effect is communicated to the applicant giving him an opportunity to state his case within a specified period of time before a final decision is taken on the application. Representations against such *prima facie* rejection orders should be addressed to the Administrative Ministry concerned.

46. The initial validity period for a letter of intent is 12 months. In cases where only one further clearance, viz., foreign collaboration or capital goods clearance, is necessary, one further extension of 6 months to the initial validity may be considered. In cases where both foreign collaboration and capital goods clearances are involved, two extensions of 6 months each beyond the initial validity period of 12 months may be considered. Requests for extensions to letters of intent should be addressed to the Administrative Ministry concerned.

47. Applications for extensions beyond a total period of 18 or 24 months, as explained above, will not be entertained. If an entrepreneur is not able to file applications for all the clearances he needs within the total periods indicated above, his letter of intent will lapse and he will have to apply for a fresh letter of intent, if so desired.

Industrial Licences

48. Once the conditions incorporated in the letter of intent are fulfilled, it is converted into an industrial licence. The Administrative Ministry concerned should be approached for converting letters of intent issued prior to 1 November, 1973 into industrial licences with a copy of the letter of intent and evidence of fulfilment of the conditions attached to it. The Secretariat for Industrial Approvals may be addressed for conversion of letters of intent into industrial licences in cases where the letter of intent has been issued on or after 1

November, 1973. The specimen form of the industrial licence is given in Appendix XII.

49. The initial validity of industrial licences will be 2 years within which period commercial production from the licensed capacity will have to be established. This period can be extended by the Administrative Ministry concerned if there is good and sufficient reason for two further periods of one year each. While extensions in suitable cases may be considered favourably where the investor has made serious efforts to commission capacity, the Administrative Ministries will take a strict view of cases where adequate progress has not been made so that preemption of capacity and delays in bringing capacity to fruition can be effectively discouraged. Requests for extensions to the validity period of industrial licences should be addressed to the Administrative Ministry concerned.

Returns to be Submitted

50. Entrepreneurs holding industrial licences are required to submit returns in Form 'G' prescribed under Rule 19 of the Registration and Licensing of Industrial Undertakings Rules 1952 within one month after the expiry of every half year ending 30 June and 31 December commencing from the date of issue of the licence, until such time as the industrial undertaking commences production. A copy of the Form 'G' return will be found in Annexure II to Appendix XII. The Form 'G' return should be submitted in duplicate to the Secretariat for Industrial Approvals (Monitoring Unit), Udyog Bhavan, New Delhi-110011. Copies of the Form 'G' return should also be sent to the Administrative Ministry concerned and to the Director-General of Technical Development or other appropriate Technical Authority. Entrepreneurs are advised that failure to submit the Form 'G' return on the due date is liable to penal action under the Registration and Licensing of Industrial Undertakings Rules 1952.

51. The commencement of commercial production should also be notified to the authorities specified in paragraph 50 above in the form given in Annexure III to Appendix XII.

52. After commencement of production, licensed/registered industrial units should submit monthly production returns to the concerned technical authorities in the form prescribed in Appendix XIII. Guidelines have been issued by the Directorate General of Technical Development to all the units engaged in selected industries (as per list given in Annexure to Appendix XIII) for providing production data in this form. The codes for their factories and products have either been provided or are in the process of being provided by the Directorate General of Technical Development. The units engaged in the manufacture of items other than those included in the select list may submit the produc-

tion returns in this form without giving the code numbers. Government have decided that industrial units which fail to submit monthly production returns to the Directorate General of Technical Development within the prescribed time limits would be denied assistance by way of raw materials allocation, etc. A Press Note issued on 1 August, 1975 in this connection, is at Appendix XIII(B).

III. CONSIDERATIONS GOVERNING GRANT OF INDUSTRIAL LICENCE

53. In taking a decision on industrial licence applications, the following principal considerations are kept in mind:

- (i) The policy framework contained in the Industrial Policy Resolution 1956 (*vide* Appendix 1);
- (ii) The detailed considerations set out in Government's Statement dated 2 February, 1973 on Licensing Policy (*vide* Appendix 11);
- (iii) The priorities and production targets of current Five Year and Annual Plans;
- (iv) Techno-economic considerations relevant to a particular industry; and
- (v) Techno-economic features of the project proposal.

54. Part II of the annual Guidelines for Industries issued by Government contain a detailed exposition of the policies governing the growth of various industries. They also contain information on the demand, licensed and installed capacity, whether or not there is scope for additional capacity, and wherever possible the information, on the technology and size that are likely to be efficient and economic, the regional locations that appear to be favourable and other relevant criteria for licensing for a number of individual industries. This publication will facilitate entrepreneurs to arrive at appropriate investment decisions and to submit well prepared schemes with greater assurance of acceptance.

55. The following are the more important features with reference to which industrial licence applications are examined:

- (i) The priority of the industry as outlined in the Plan.
- (ii) Whether the proposed investment conforms to the policies outlined in the Licensing Policy Statement of 2 February, 1973.
- (iii) The planned or projected demand, including export demand for the proposed items of manufacture and the scope for further licensing in the light of capacity already licensed and likely to materialise.
- (iv) The net effect on balance of payments having regard to export possibilities, import savings and the outgo on import of capital goods, raw

materials and components, and on payments for import of technology.

- (v) Locational aspects in the light of regional demand and whether the project will be, or is capable of being, set up in a backward area.
- (vi) The extent to which and the speed with which continued dependence on imports is sought to be reduced through a phased programme for progressive indigenous manufacture of components and raw materials.
- (vii) The extent to which the proposal is postulated on the utilisation of indigenous know-how, design and consultancy services and research and development.
- (viii) The direct and indirect employment potential.
- (ix) Whether components are proposed to be sub-contracted to small-scale and ancillary units to the extent that is appropriate and feasible.
- (x) Whether the proposed capacity is of economic size.
- (xi) Whether the processes proposed to be adopted are efficient from a techno-economic point of view.
- (xii) The extent to which diversification and expansion proposals will result in fuller utilisation of capacity and economies of scale.
- (xiii) Whether adequate attention has been given in preparing the proposal to the market; availability of raw materials; utilisation of by-products; availability of water, power, transport and fuel; arrangements to ensure the safe disposal of effluents and gases into air, water and soil; and other relevant factors.
- (xiv) The competence of the entrepreneur as evidenced by the preparatory work done, his technical qualifications, etc. and his record in implementing other licences which might have been issued to him.
- (xv) Whether commercial production is proposed to be achieved in a realistic time-period.

56. Form IL seeks to obtain information on all these points from the applicant. The quality of the information furnished in response to it will enable Government to take into account the extent of preparatory work done by the entrepreneur and whether the project is realistic, viable and conforms to Government's policies and priorities. Entrepreneurs are also welcome to contact the Entrepreneurial Assistance Unit of the Secretariat for Industrial Approvals, Udyog Bhavan, New Delhi-110011 for any further information and assistance they might need.

57. Important instructions to entrepreneurs for submission of applications for industrial licences/registration with technical authorities are at appendix XXXIV.

CHAPTER III

FOREIGN COLLABORATION

Entrepreneurs desirous of setting up an industry with foreign collaboration have first to obtain a letter of intent, if the item of manufacture pertains to a scheduled industry and the undertaking is not exempt from licensing under the current licensing policy of the Government. Entrepreneurs may submit composite applications for a letter of intent as well as for foreign collaboration. In such cases, it is the intention of Government to give a simultaneous disposal to both applications. Where the proposed investment is exempt from licensing, entrepreneurs can straightway apply for the approval of foreign collaboration.

Policy of Government

2. Foreign collaboration is permitted only in fields of high priority and in areas where the import of foreign technology is considered necessary. In other areas, import of technology will be considered on merits if substantial exports are guaranteed over a period of 5 to 10 years and there are reasonable prospects for such exports.

3. Government have issued illustrative lists of industries where:

- I(A) foreign investment may be permitted
- I(B) only foreign technical collaboration may be permitted (but not foreign investment)
- II no foreign collaboration (financial or technical) is considered necessary.

Lists I(A) and I(B) mentioned above also indicate, wherever possible, the range of gross royalty (subject to taxes). These lists are at Appendix XVI. Foreign collaboration for industries not included in any of the three lists will be considered on merits. Some of the important considerations in the approval of proposals for foreign collaboration (financial and/or technical) are indicated in the following paragraphs.

Equity Participation

4. Government's policy towards permitting foreign equity participation is selective. Such participation has to be justified having regard to factors such as the priority of the industry, the nature of the technology

involved, whether it will enable or promote exports which may not otherwise take place and the alternative terms available for securing the same or similar technological transfer. The ceiling for foreign equity participation is 40 per cent although exceptions can be considered on merits.

5. The foreign share capital should be by way of cash without being linked to tied imports of machinery and equipment or to payments for know-how, trade-marks, brand-names etc.

Technical Collaboration

6. Technical collaborations are considered on the basis of annual royalty payments which are linked with the value of actual production. The percentage of royalty will depend on the nature of technology but should not ordinarily exceed 5 per cent. Royalty is calculated on the basis of the ex-factory selling price of the product net of excise duties *minus* the landed cost of imported components. Royalty payments are subject to Indian taxes. Wherever appropriate, payment of a fixed amount of royalty per unit of production will be preferred. Royalty payments are limited to a period of 5 years.

7. Lumpsum payments may also be considered in appropriate cases for the import of drawings, documentation and other forms of know-how. In deciding on the reasonableness of such payments, account will be taken of the value of production so that the lumpsum and the recurring royalty, if any, is an acceptable proportion of the value of production. Such payments will be subject to applicable Indian taxes. The lumpsum payments should be phased out as follows:

- 1/3rd to be paid on taking the agreement on record;
- 1/3rd to be paid on the transfer of documentation etc.; and
- 1/3rd to be paid at the commencement of production.

8. Collaboration agreements are approved normally for a period of 5 years from the date of agreement or 5 years from the date of commencement of production provided production is not delayed beyond a period of 3

years from the signing of the agreement (*i.e.*, a maximum of 8 years from the date of signing of the agreement).

General Guidelines to be Followed

9. Entrepreneurs are advised to take note of the following guidelines in negotiating foreign collaboration agreements so as to ensure that their proposals conform to the policies of Government.

- (i) They should, to the fullest extent possible, explore alternative sources of technology, evaluate them from a techno-economic point of view and furnish the reasons for preferring the particular technology and the source of import.
- (ii) The Indian party should be free to sub-licence the technical know-how/product design/engineering design under the agreement to another Indian party on terms to be mutually agreed to by all the parties concerned including the foreign collaborator and subject to the approval of Government.
- (iii) There should be no requirement for the payment of a minimum guaranteed royalty regardless of the quantum and value of production.
- (iv) Arrangements or clauses which in any manner bind the Indian party with regard to the procurement of capital goods, components, spares, raw materials, pricing policy, selling arrangements, etc. should be avoided.
- (v) To the fullest extent possible, there should be no restrictions on free export to all countries.
- (vi) The use of foreign brand names will not be permitted for internal sales.
- (vii) Suitable provisions should be made for the training of Indians in the fields of production and management. There should also be adequate arrangements for Research and Development, engineering design, training of technological personnel and other measures for the absorption, adaptation and development of the imported technology. Such measures can be undertaken through in-house facilities of the entrepreneur or in collaboration with recognised engineering design, consultancy, R and D organisations in the public or private sectors and recognised scientific and educational institutions where the necessary facilities exist.
- (viii) Consultancy services required to execute the project should be obtained from Indian consultancy firms. If foreign consultancy is also considered necessary, an Indian consultancy firm should be the prime consultant.
- (ix) If the proposed item of manufacture is covered by a patent in India, it should be ensured that the payment of royalty for the duration of the agreement would also constitute compensation for the

use of patent rights till the expiry of the life of the patent and that the Indian party would have the freedom to produce the item even after the expiry of the collaboration without any additional payments.

- (x) Collaboration agreements will be subject to Indian laws.
- (xi) Government do not favour requests for extensions to the duration of collaboration proposals. All efforts should, therefore, be made by the Indian party to assimilate the technology within the initial duration of the agreement.

Procedures

10. Applications for foreign collaboration should be submitted with 10 spare copies and an equal number of copies of covering letter, if any, to the Secretariat for Industrial Approvals (Foreign Collaboration Unit), Department of Industrial Development, Udyog Bhavan, New Delhi-110011 in the form prescribed for the purpose (reproduced in Appendix XV). Applications can be made in printed or typed forms and spare sheets used as necessary. No fee is required to be paid for foreign collaboration applications. It is the intention of Government to dispose of foreign collaboration applications within 90 days.

11. Applicants are advised to furnish clear and complete information in their applications. Incomplete applications will be returned to the applicants for rectification of deficiencies by the Secretariat for Industrial Approvals.

Special Procedure for the Import of Designs and Drawings

12. Government have introduced a simplified procedure for the import of designs and drawings for manufacturers of industrial machinery, machine-tools and electrical equipment. The Press Notes dated 7 December, 1973, 20 March, 1975 issued in this regard will be found in Appendix XVIII (a & b). According to this procedure, import of drawings and designs not exceeding Rs. 5 lakhs in value are permitted once in a year to undertakings which are licensed/registered for items covered under "Industrial Machinery" and "Machine Tools" "equipment for generation, transmission and distribution of electricity including transformers" in the First Schedule to the Industries (Development and Regulation) Act or for Rubber Machinery or Printing Machinery. Applications for the purpose have to be submitted in the prescribed form (*vide* Appendix XIX) with 5 spare copies to the Secretariat for Industrial Approvals, FC Unit.

Post Approval Procedure

13. A copy of the specimen letter of approval of

foreign collaboration is at Appendix XVII. The approval for foreign collaboration is valid for a period of six months from the date of issue. In case the terms of collaboration approved by the Government are acceptable to the Indian party, an intimation in this regard has to be sent to the concerned Administrative Ministry. The Indian party can then execute the collaboration agreement with the collaborator which should be strictly in accordance with the terms approved by the Government. 10 copies of the collaboration agreement so executed, all of which should be signed by both the collaborating parties, should be furnished to the Administrative Ministry. The collaboration agreement is scrutinised by the Administrative Ministry and if found to be in accordance with the terms specifically approved by Government is taken on record and an intimation is sent to the party. A copy of the agreement is then transmitted to the Reserve Bank of India through the Ministry of Finance (Department of Economic Affairs) on the basis of which remittances to the foreign collaborator are authorised by the Reserve Bank of India. Representations against the terms and conditions of collaboration approved by the Government, should be sent to the Administrative Ministry/Department concerned with the item of manufacture. A copy of the representation may, however, be sent to Foreign Colla-

boration Unit, Secretariat for Industrial Approvals, Department of Industrial Development, Ministry of Industry and Civil Supplies, Udyog Bhavan, New Delhi-110011 for information.

14. During the pendency of the collaboration, the Indian party is required to submit an annual return to the Foreign Collaboration Unit of the Secretariat for Industrial Approvals, Department of Industrial Development by 31 January of every year in the form at Appendix XX.

15. Applicants can contact the Entrepreneurial Assistance Unit of the Secretariat for Industrial Approvals, Department of Industrial Development, Udyog Bhavan, New Delhi-110011 for any clarification or assistance that they might need. In regard to information and assistance in securing foreign collaboration, entrepreneurs may approach the Indian Investment Centre, "Jivan Vihar", Parliament Street, New Delhi-110001. The Centre has Branch offices at Calcutta, Duesseldorf, London, New York and Tokyo.

16. *Guidelines on technology*: A Technology Development Division has been set up in the Directorate General of Technical Development. The broad objectives of this Division and the assistance being provided to the entrepreneurs are given in appendixXL.

CHAPTER IV

IMPORT OF CAPITAL GOODS

Capital goods which are essential for purposes of production, but which are not indigenously available are allowed to be imported. The procedure for obtaining an import licence for this purpose is dealt with in detail every year in the following publication of the Government of India.

“Import Trade Control—Hand Book of Rules and Procedures”. Chapter VI of this publication for the year 1976-77 gives the relevant information in regard to import of capital goods.

2. A copy of the application form for the import of capital goods is given in Appendix XXVII.

3. A list of capital goods not manufactured in the country or the indigenous availability of which is not likely in the near future, has been prepared and, published alongwith the Indian Export Service Bulletin dated January 11, 1975 with the twin objectives of:—

- (i) Giving an opportunity to indigenous manufacturers to consider taking up the production of any of the items in the list as part of development and import substitution; and

- (ii) Eliminating the need to go through the advertisement procedure in respect of the machines which are not manufactured in the country.

4. The list of goods has been broadly divided into three major categories, viz., (I) MACHINERY-GENERAL, (II) MACHINE TOOLS, and (III) INSTRUMENTS. The list also contains equipment required for installation of fertiliser plants and machinery that is being allowed for import for manufacture of finished leather. This list is under review as it is possible that some of the items included earlier might have been taken up for development during 1975. A revised list will be brought out by the Directorate General of Technical Development shortly.

5. Requests for copies may be addressed to the Directorate of Exhibitions and Commercial Publicity, Udyog Bhavan, New Delhi-110011, alongwith a crossed postal order or by money order of Rs. 5.00 made payable to ‘The Director of Exhibitions and Commercial Publicity’.

CHAPTER V

IMPORT OF RAW MATERIALS

Raw materials which are essential for purposes of production in an industrial undertaking but are not indigenously available are allowed to be imported. The volume on Import Trade Control Policy published every year (Red Book) gives details of the licensing policy for individual industries and for different categories of importers.

The publication “Import Trade Control—Hand Book of Rules and Procedures”, which is a supplement to the Red Book, gives detailed information as to the procedure for import of raw materials by actual users (industrial). Chapter IV of this publication for the year 1976-77 may be referred to.

CHAPTER VI

INCENTIVES FOR DEVELOPMENT OF INDUSTRIALLY BACKWARD AREAS

As part of the measures to ensure balanced regional development, Government of India have announced certain financial incentives for industries established in selected backward districts/areas. These are in addition to the facilities and incentives that are offered by individual State Governments. The incentive schemes for the country as a whole, as announced by Government of India, are indicated below:

(A) CENTRAL OUTRIGHT GRANT OR SUBSIDY SCHEME 1971

Districts/Areas

2. The list of backward areas covered under the scheme is given in Appendix XXI.

Eligibility

3. The industrial units should have been set up or effective steps in respect thereof taken, after 1 October, 1970, 26 August, 1971 or 1 March, 1973 for being eligible for subsidy as specified in Appendix XXI. Only those units which were set up after these dates or in respect of which effective steps were taken after the crucial date will be eligible.

4. Effective steps shall mean one or more of the following:

- (a) 60 per cent or more of the capital issued for an industrial undertaking, which is a public company within the meaning of the Companies Act, has been paid up.
- (b) A substantial part of the factory building has been constructed.
- (c) A firm order has been placed for a substantial part of the plant and machinery required for the undertaking.

5. All industrial units including servicing units, having fixed capital investment in land, buildings, and machinery irrespective of the amount of their capital investment, other than those departmentally run, whether in public or private/joint/cooperative sectors, are eligible.

6. Existing units can claim subsidy for effecting substantial expansion after the crucial dates mentioned in so far as the expansion portion is concerned.

Quantum

7. For claims relating to the period ending 28 February, 1973 the subsidy will be 10 per cent of the fixed capital investment or Rs. 5 lakhs, whichever is lower. For claims relating to the period commencing from 1 March, 1973, the subsidy will be 15 per cent of the fixed capital investment or Rs. 15 lakhs, irrespective of the capital cost of the project, whichever is lower.

Income-tax Exemption on Subsidy

8. Capital subsidy disbursed under this scheme would not be taxable as income or revenue receipt in the hands of recipients.

Procedure

9. The subsidy has to be claimed from the State Governments who scrutinise the claims through State Level Committees. The industrial units have to comply with the procedural and other requirements as devised by the respective State Governments. However, the following general guidelines will be applicable:

- (a) Units relating to col. 3 of Appendix XXI which took 'effective steps' between the period 26 October, 1970 and 26 August, 1971 should have got themselves registered with the State authorities by 31 May, 1972.
- (b) Units relating to col. 4 of the Appendix XXI which took 'effective steps' on and after 26 August, 1971 should have got themselves registered by 31 December, 1973.
- (c) New units and units effecting substantial expansion should register themselves with the State authorities before taking "effective steps" for starting production or substantial expansion as the case may be.

N.B. Registration has to be in accordance with the rules and procedures laid down by the different State Governments. The dates of registration may be considered by the State Level Committee in case the units have satisfied other conditions of eligibility of grant of subsidy.

(B) CONCESSIONAL FINANCE SCHEME

Coverage

10. A list of the 246 backward districts which qualify for this scheme is in Appendix XXII.

11. Under this scheme, Industrial Development Bank of India, Industrial Finance Corporation of India, Industrial Credit and Investment Corporation of India, extend concessional finance in the form of low rate of interest, longer initial grace period and reduction of commitment charges, etc. The small scale units get these facilities through the State Financial Corporations while the medium and large scale units can apply directly to these institutions for concessional finance. The terms and conditions prescribed by each of these institutions are given in Appendices XXIII to XXV.

(C) TRANSPORT SUBSIDY SCHEME 1971

Areas Covered

12. The areas covered by this scheme are: Jammu Kashmir, Assam, Meghalaya, Nagaland, Manipur, Tripura, Arunachal Pradesh, Mizoram, Himachal Pradesh and Hill districts of Uttar Pradesh (Dehradun, Nainital, Almora, Pauri Garhwal, Tehri Garhwal, Pithoragarh, Uttarkashi and Chamoli).

Eligibility

13. All industrial units (barring plantations, refineries and power generating units) both in public and private sectors irrespective of their size, are eligible for the subsidy. Expansion/diversification cases are also covered.

Quantum

14. It is 50 per cent of the transport cost of raw materials as also of finished products between the rail head at Pathankot or Jammu and the location of the industrial units whichever is shorter, in the case of Jammu and Kashmir; between Siliguri and the location of the industrial units in the case of the north eastern region; between Pathankot, Kirathpur Sahib, Nangal, Kalka, Ghanauli, Yamuna Nagar, Barara and Hoshiarpur and the location of the industrial units in the case of Himachal Pradesh; and between Dehradun, Rishikesh, Moradabad, Bareilly, Kotdwara and Shahjahanpur and the location of industrial units in the case of hill districts of Uttar Pradesh. No subsidy on internal movement within the State/Area is allowed. In the case of the north-eastern region, if the goods are moved entirely by road, the subsidy will be limited to the sum of road transport cost for that part of the journey for which there is no rail transport and the rail transport cost for that part which is connected by rail.

Procedure

15. The claims for subsidy should be submitted to the Director of Industries of the State concerned. The unit will have to fulfil the requirements of the State authorities as to pre-registration, application form, procedural requirements indicating the costs of transportation, etc.

Special Tax Rebate for Industries set up in Backward Areas

16. Under a provision introduced in 1974, 20 per cent of the profits and gains derived from newly established industrial undertakings or hotel business in the backward areas are exempt from income-tax. These exemptions are available for the first 10 assessment years of the undertaking, provided certain conditions are satisfied. The main conditions are:

- (i) the undertaking should not be formed by transfer of machinery and plant previously used for any purpose in any backward area; and
- (ii) it should employ 10 or more workers in a manufacturing process carried on with the aid of power or 20 or more workers where no power is used.

Concessions for Supply of Machinery on Hire Purchase by National Small Industries Corporation

17. National Small Industries Corporation have reduced the rate of interest from $13\frac{1}{2}$ per cent to 11 per cent for supplying machinery on hire purchase to industrial units set up in backward areas. In case of indigenous machinery, the earnest money to be deposited has also been reduced from 20 per cent to 10 per cent and to 5 per cent in the case of imported machinery.

Import Facilities for Units to be set up in Specified Backward Areas

18. The import policy has been liberalised to a very great extent for the import of raw materials, components and spares in respect of small scale units to be set up in backward areas listed in Appendix XXI. The special facilities include: (a) all units in the non-select list will be treated as select units; (b) mode of financing in respect of these units would be 75 per cent free foreign exchange and 25 per cent in U.K. credit; and (c) any unit whose entitlement works out up to Rs. 20,000 will get the imported raw materials in free foreign exchange.

Such units will be eligible for preferential pricing in regard to the supply of canalised raw materials by canalising agencies against release orders, as if they are exporting units.

CHAPTER VII

SMALL SCALE INDUSTRIES

Definition

A small scale industry is defined as an undertaking having investments in fixed assets in plant and machinery not exceeding Rs. 10 lakhs. The definition of an ancillary industry is as under:

Undertakings having investments in fixed assets in plant and machinery not exceeding Rs. 15 lakhs and engaged in—

- (a) the manufacture of parts, components, sub-assemblies, toolings or intermediates; or
- (b) the rendering of services;

and supplying or rendering, or proposing to supply or render 50 per cent of their production or the total services, as the case may be to other units for production of other articles.

Provided that no such undertaking—shall be a subsidiary of, or owned or controlled by, any other undertaking.

This definition has come into force with effect from 1 May, 1975. A Press Note dated 19 May, 1975 announcing the revision of definition of small scale industries and ancillary industries is reproduced in Annexure XXXII.

Comprehensive Assistance Programme

2. The Government of India provide comprehensive assistance to small entrepreneurs at every stage *i.e.*, from selection of an item of manufacture to marketing of the final product. The Small Industries Development Organisation (SIDO) of the Department of Industrial Development has got a network of Small Industries Service Institutes, Branch Institutes, Extension Centres and Workshops throughout the country. The assistance programme of the SIDO includes supply of information on prospects of items which could be taken up in the small sector; provision of economic, technical and managerial services; drawing up of schemes and industry prospect sheets; common facility and extension services; training in management and technical trades; assistance in modernisation and technological developments and guidance in the procurement of machinery, factory site, finance, marketing, participation in Government stores purchase, etc. Besides, the State Governments, through their respective Directorates of Industries assist the small entrepreneurs in allotment of

land/factory sheds, recommend them for supply of scarce categories of raw materials including imported ones and provide financial assistance, both for long and short term requirements.

3. The development of the small scale industries is the responsibility of the State Governments. However, with a view to helping the small scale industries and the State Governments, a comprehensive assistance programme for the development of small scale industries has been formulated by the Government of India.

Reservation

4. In order to provide a protected field where small entrepreneurs would be able to establish units without any fear of competition from new large scale concerns, the Government of India have reserved 177 items for exclusive manufacture in the small scale sector. A list of such items is given at schedule I (Appendix IV).

Registration

5. The small scale sector is a free sector in the sense that a prospective entrepreneur need not obtain any licence for setting up a unit provided the item of manufacture is not governed by special regulations. A list of industries requiring special regulations is given in Schedule IV of Appendix IV. However, the entrepreneurs in their own interest are advised to register their units with the Directorate of Industries of the State where their unit is located. Once a unit is registered with the Directorate of Industries concerned, it is entitled to obtain all facilities and assistance from Government under the programme of development of small scale industries as announced from time to time.

Technical Assistance

6. As soon as the entrepreneur has decided about the line of manufacture, free assistance is available to him through the technical officers of SIDO for preparing a detailed scheme for establishment of his unit. The SIDO has already prepared a large number of schemes/reports and other literature containing technical and general information covering a wide variety of items. Technical assistance and advice is given in day-to-day working of the unit both at the SISIs and Extension

Centres. While visiting the units, the technical officers also provide suitable assistance on the spot.

Training

7. The training programmes organised by SIDO at the various SISIs and their Extension Centres aim at improving the technical skills of the workers and acquainting the entrepreneurs with advanced production and management techniques. For specialised courses, 3 Proto-type Production-cum-Training Centres have been set up at Okhla (New Delhi), Rajkot (Gujarat) and Howrah (Calcutta) under the National Small Industries Corporation. An Institute for advanced training in tool design and tool making has been established at Hyderabad and another for electrical measuring instruments in Bombay. Small industries are encouraged to avail of the facilities of these institutes by awarding stipends to them. The State Governments have also set up a number of training centres.

Economic Information

8. The Small Industries Service Institutes are conducting surveys and also collecting basic economic information in respect of various items which could be taken up for manufacture in the small scale sector. An entrepreneur who is desirous to set up a unit in the small scale sector can contact the Small Industries Service Institute of the State and seek their advice whether the item proposed to be taken by him for manufacture has any scope for marketing, etc. in that area.

Financial Assistance

9. The following government and institutional agencies are providing different types of financial assistance to small industrialists:

(i) Long and Medium Term

1. State Directorates of Industries
(under State Aid to Industries Act)
2. State Financial Corporations
3. Scheduled Commercial Banks

(ii) Short-term/ Working Capital

Scheduled Commercial Banks

State Aid to Industries Act

10. Under the State Aid to Industries Act, the State Governments provide finance in the form of loans, guarantees for loans raised from banks, subscription to shares and debentures etc. In most of the States, loans up to Rs. 1000 are advanced on personal bonds, upto Rs. 5000 against one or more personal sureties and above Rs. 5000 at 75 per cent of the value of security offered (land, buildings, machinery, equipment, stocks and their assets including those created out of the loans). These loans are advanced on soft terms and are

repayable in easy instalments spread over 10 years. The rates of interest vary from State to State. Some States offer rebate for prompt repayment.

State Financial Corporations

11. State Financial Corporations have been established in all the States with the object of providing medium and long term finance to small scale industries out of their own funds besides disbursing loans as agents of the State Governments. In cases of limited companies and cooperative societies, loans are advanced from Rs. 10,000 to Rs. 30 lakhs and in case of others upto Rs. 15 lakhs. The Corporations generally maintain a margin varying from 25 per cent to 50 per cent. The rate of interest charged by the Financial Corporations varies from State to State. Most of the Corporations also allow a rebate for prompt repayment.

State Bank of India

12. Credit facilities are extended to small industries against security of raw materials and/or finished or semi-finished goods either under lock and key or factory type basis. The rates of interest charged by the State Bank from small scale units whose limits do not exceed Rs. 200,000 are generally lower than the market rates.

The State Bank of India also provides medium term loans for a period extending upto 10 years to small units for the construction of factory building and purchase of plant and machinery. The Bank also provides instalment credit loans for obtaining moveable equipment such as jigs, fixtures and accessories.

Credit Guarantee Scheme

13. With the object of encouraging commercial banks and other credit institutions to grant loans to small industries, the Government of India, through the Reserve Bank of India, have put into operation the Credit Guarantee Scheme. The scheme provides for sharing of possible losses between the lending institutions and the Government of India.

Capital Participation

14. Several State Small Industries Corporations participate in equity capital. Information in this regard could be obtained from the respective corporations.

Machinery on Hire-purchase

15. The National Small Industries Corporation provides assistance to small scale units in the fields of supply of modern plant and machinery on hire-purchase basis; training facilities; technical know-how for commercial reproduction of prototypes developed by the Prototype Development-cum-Training Centres;

testing facilities, supply of raw materials and components both indigenous and imported; and, in both internal and external marketing including introduction of the products of small scale industries to the Central Government buying agencies. Applications for procuring machinery are to be made to the NSIC on prescribed forms through the Directorate of Industries.

RAW MATERIALS

Imported Raw Materials

16. The small scale units are entitled to import raw materials according to the Import Trade Control Policy as announced every year. For getting imported raw materials, the new units are required to apply in the prescribed form to the State Director of Industries who in turn, recommend their cases to the Joint Chief Controller of Imports and Exports of the region concerned for the issue of import licences/release orders.

Indigenous Raw Materials

17. Most of the raw materials produced indigenously have been decontrolled and units are free to take these materials directly from the producers, stockyards of the producers, State Small Industries Corporations and from the open market. However, wherever there is some control, the unit has to apply to the State Director of Industries, who will allocate the material to the unit.

Industrial Estates/Areas

18. The principal objective of the programme of establishing industrial estates is to provide factory accommodation to small industries at suitable sites with facilities of water, power, transport, banks, post office, etc. The sheds in these estates are let out on a reasonable rent or on hire-purchase basis or on outright sale subject to the terms and conditions prescribed. Besides, developed sites/plots are also being made available to entrepreneurs in various States. Information about availability of accommodation in the industrial estates/areas would be available from the District Industries Office and the Directorates of Industries.

Marketing

19. The National Small Industries Corporation also helps small industries participating in the Government Store-Purchase Programme. 220 items have been reserved by the Directorate General of Supplies and Disposals for exclusive purchases from the small scale sector. A price preference upto 15 per cent is given to small scale units in respect of items which are purchased both from large scale and small scale sectors. Besides, the State Governments have also their stores-purchase programmes. Information in this regard may be obtained from the SISIs and the Directors of Industries.

Export Promotion

20. The SIDO renders various services to exporting small units for manufacture of export worthy products in respect of product designing, product quality, packaging and allied services. The SIDO also conducts export training courses for small industrialists and renders consultancy services in the field of exports. The State Directors of Industries also provide assistance in the field of export promotion.

Ancillary Industries

21. A few products have been chosen for intensive assistance for developing ancillaries. With a view to augmenting the scope of ancillary development, three sub-contracting exchanges have been set up at Small Industries Service Institutes Madras, Bombay and Calcutta. Five more exchanges are likely to start functioning shortly at Ahmedabad, Bangalore, Hyderabad, Jaipur and New Delhi. These exchanges collect, maintain and disseminate information about requirements of various items by the large scale units and provide guidance to the small entrepreneurs in this regard.

Modernisation

22. With a view to guiding a small scale unit to adopt modern production and management concepts and to improve competitive strength, a programme of modernisation of small scale industries has been launched by the Small Industries Development Organisation. The salient features of the programme are:

- (a) Modernisation of management techniques including the modernisation of attitudes and skills and personnel at all levels;
- (b) Modernisation of products in terms of design, standardisation, etc.;
- (c) Modernisation of organisation structure;
- (d) Modernisation of technology in the sense of identification and the use of low cost technology which is at the same time consistent with economy, efficiency and quality; and
- (e) Modernisation of machinery and equipment.

Industries to be modernised during the year 1976-77 will be as follows:

1. Machine tools
2. Automobile components and accessories
3. Castings and forgings
4. Domestic electrical appliances
5. Hosiery and knitwears
6. Bicycle and bicycle parts
7. Leather and leather goods
8. Hand tools
9. Scientific instruments
10. Storage batteries and components.

Every year, 10 new industries will be selected for modernisation in the small scale sector. The programme

is designed to provide the following assistance to the small scale units:

- (a) Machinery and equipment—both indigenous and imported;
- (b) Credit facility—both long term and short term;
- (c) Techno-managerial assistance;
- (d) Raw materials—indigenous scarce and imported, wherever possible; and
- (e) Training, visits by foreign experts, etc.

Small Industries Extension Training Centre, Hyderabad

23. The Small Industries Extension Training Institute has been established by the Government of India to promote the modernisation of small scale industry. Its main function is to provide training facilities to the officers of the various State Governments, Central Government, Financial Corporations and Associations of Small Industries.

Rural Industries Projects Programme

24. Rural Industries Projects Programme is a centrally sponsored programme of the Government of India whose basic objectives are the dispersal of industries, and creating of additional employment opportunities.

During the Fifth Plan period, the Planning Commission has approved an outlay of Rs. 45 crores for this programme with a target of establishing 40,000 new units and creation of employment opportunities for two lakh persons. The Programme is being implemented by the State Directorates of Industries and special facilities are being provided to the entrepreneurs to set up industries, including training of rural artisans, finance at a subsidised rate of interest, and also providing them raw materials.

Rural Artisans Programme

25. The Rural Artisans Programme is a part of the scheme of Small Farmers Development Agency (SFDA) and Marginal Farmers and Agricultural Labour (MFAL) launched by the Ministry of Agricul-

ture as a Central scheme in 87 selected areas all over the country. This programme is being implemented by the Ministry of Industry and Civil Supplies. The objective of these programmes are to provide all-round training to village artisans to enable them to take up business-/production collectively or individually for meeting the local demand or setting up new enterprises based mainly on local resources and local market. After completion of the training, the trained artisans are supplied improved tools, equipment and work sheds at subsidised costs.

Central Institute of Tool Design

26. The Central Institute of Tool Design has been set up in Hyderabad with the assistance of United Nations Development Programme and International Labour Organisation. The main objectives of the Institute are:

- (1) training of technical personnel preferably of small scale industries in the design and manufacture of tools, jigs, fixtures, dies and moulds;
- (2) provision of advisory, consultancy and common-service facilities to small scale industries including assistance in the design and development of tools for various processes.
- (3) production on a limited basis of tools, jigs, fixtures, gauges, dies and moulds, etc., and
- (4) recommending measures to standardise components of tools, jigs, fixtures, dies and moulds.

Regional Testing Centres

27. Small Industries Development Organisation has started four Regional Testing Centres at, New Delhi, Calcutta, Bombay and Madras to:

- (a) provide testing facilities to the small scale units;
- (b) assist the small scale units to get their products ISI certification;
- (c) to advise the small scale units in improving the quality to meet the requirements of the internal and foreign markets.

These Centres will have testing facilities for Mechanical, Metallurgical and Electrical products.

CHAPTER VIII

FOREIGN EXCHANGE REGULATION ACT 1973

Relevant Provisions

Section 29 of the Foreign Exchange Regulation Act 1973 provides for general or special permission of the Reserve Bank of India for—

- (a) Opening of new branches, offices or other places of business by foreign companies;
- (b) carrying on in India of any activity whether new or existing of a trading, commercial or industrial nature;
- (c) acquisition of the whole or any part of any undertaking in India carrying on any trade, commercial or industrial activity; and
- (d) purchases of shares of Indian companies.

All non-residents, branches of foreign companies operating in India and Indian companies having more than 40 per cent non-resident shareholdings will be required to make an application to the Reserve Bank of India in the prescribed form for seeking approval under section 29 for purposes of carrying on or establishment of a branch, office or other place of business for carrying on any activity of a trading, commercial or industrial nature. An extract of section 29 is in Appendix XXVIII.

2. The Reserve Bank of India will finally deal with the following categories of cases in accordance with the guidelines issued from time to time without reference to the Government—

- (a) Indian companies having more than 40 per cent foreign holdings and branches of foreign companies engaged in production of items specified in Appendix I of the Industrial Licensing Policy 1973 or engaged in predominantly export-oriented industries *i.e.*, exporting 60 per cent or more of total production;
- (b) companies which have obtained recent approvals (after February 1970) in respect of industries specified in Appendix I of the Industrial Licensing Policy or predominantly export-oriented industries. In this category, individual application will not be necessary; and
- (c) tea plantation companies which have significant exports will be treated at par with cases of companies engaged in manufacturing activities specified in Appendix I of the Industrial Licensing Policy 1973.

3. All other cases will be referred by the Reserve Bank of India either to the Ministry of Industry and

Civil Supplies or Ministry of Finance (Department of Economic Affairs) on the following basis:

Ministry of Industry and Civil Supplies

- (a) All cases relating to manufacturing and industrial activities.
- (b) Cases relating to industrial consultancy.

Department of Economic Affairs

- (a) All cases relating to trading companies.
- (b) All cases relating to plantation companies, construction and non-manufacturing and non-industrial companies.
- (c) Acquisition of the whole or any part of any undertaking in India carrying on any trade, commercial or industrial nature.
- (d) Purchase of shares of Indian companies.

4. The Reserve Bank of India has granted general exemption to companies incorporated in India, in which the non-resident interest does not exceed 74 per cent of their total equity share capital from the operation of the provisions of Section 29 (2) of the FERA 1973. The exemption granted is applicable only in the case of the following categories of companies which have been granted licences after February 1970 under the Industries (Development and Regulation) Act, 1951:

- (1) Companies engaged exclusively in the production of items specified in Appendix I to the Industrial Licensing Policy, 1973.
- (2) Export-oriented companies, the annual average ex-factory cost (excluding excise duty payable) of whose products exported during the last three years to places outside India (other than Nepal or Bhutan) is not less than 60 per cent of the total ex-factory cost of annual production.

The companies so exempted were required to file a declaration with the Reserve Bank in the prescribed form before February 24, 1975.

5. A high level FERA Committee consisting of the following members has been constituted, to which all cases other than those dealt with by the Reserve Bank of India are referred for consideration:

(i) Secretary (Economic Affairs)	<i>Chairman</i>
(ii) Secretary (Industrial Development)	<i>Member</i>
(iii) Secretary (Commerce)	<i>Member</i>
(iv) Secretary (Science and Technology)	<i>Member</i>
(v) Secretary (Company Affairs)	<i>Member</i>
(vi) Deputy Governor, Reserve Bank of India	<i>Member</i>

Secretaries of the concerned Ministries will be invited as and when cases relating to their Ministries come up for consideration.

6. The Committee will be serviced by both Depart-

ment of Economic Affairs and Ministry of Industrial Development on the basis of the distribution laid down in para 3 above.

7. All cases under Section 29 will be considered by the FERA Committee on the basis of the Guidelines laid on the Table of Parliament on 20 December, 1973 (Copy in Appendix XXIX) and such further guidelines or directions as may be issued from time to time.

8. The form of application under section 29 to carry on an activity of a trading, commercial or industrial nature is in Appendix XXX.

INDUSTRIAL POLICY RESOLUTION

New Delhi, 30 April 1956

No. 91/CF/48—The Government of India set out in their Resolution dated 6 April 1948 the policy which they proposed to pursue in the industrial field. The Resolution emphasised the importance to the economy of securing a continuous increase in production and its equitable distribution, and pointed out that the State must play a progressively active role in the development of industries. It laid down that besides arms and ammunition, atomic energy and railway transport, which would be the monopoly of the Central Government, the State would be exclusively responsible for the establishment of new undertakings in six basic industries—except where, in the national interest, the State itself found it necessary to secure the cooperation of private enterprise. The rest of the industrial field was left open to private enterprise though it was made clear that the State would also progressively participate in this field.

2. Eight years have passed since this declaration on industrial policy. These eight years have witnessed many important changes and developments in India. The Constitution of India has been enacted, guaranteeing certain Fundamental Rights and enunciating Directive Principles of State Policy. Planning has proceeded on an organised basis, and the first Five Year Plan has recently been completed. Parliament has accepted the socialist pattern of society as the objective of social and economic policy. These important developments necessitate a fresh statement of industrial policy, more particularly as the Second Five Year Plan will soon be placed before the country. This policy must be governed by the principles laid down in the Constitution, the objective of socialism, and the experience gained during these years.

3. The Constitution of India, in its preamble, has declared that it aims at securing for all its citizens—
 “JUSTICE, Social, economic and political;
 LIBERTY of thought, expression, belief, faith and worship;
 EQUALITY of status and of opportunity; and to promote among them all;
 FRATERNITY assuring the dignity of the individual and the unity of the Nation.”

In its Directive Principles of State Policy, it is stated that—

“The State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life.”

Further that—

“The State shall, in particular, direct its policy towards securing—

- (a) that the citizens, men and women equally, have the right to an adequate means of livelihood;
- (b) that the ownership and control of the material resources of the community are so distributed as best to subserve the common good;
- (c) that the operation of the economic system does not result in the concentration of wealth and means of production to the common detriment;
- (d) that there is equal pay for equal work for both men and women;
- (e) that the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter a vocations unsuited to their age or strength;
- (f) that childhood and youth are protected against exploitation and against moral and material abandonment.”

4. These basic and general principles were given a more precise direction when Parliament accepted in December 1954, the socialist pattern of society as the objective of social and economic policy. Industrial policy, as other policies, must therefore, be governed by these principles and directions.

5. In order to realise this objective, it is essential to accelerate the rate of economic growth and to speed up industrialisation and, in particular, to develop heavy industries and machine making industries, to expand the public sector, and to build up a large and growing cooperative sector. These provide the economic foundations for increasing opportunities for gainful employment and improving living standards and working conditions for the mass of the people. Equally, it is urgent, to reduce disparities in income and wealth which exist today, to prevent private monopolies and the concentration of economic power in different fields in the hands of small numbers of individuals. Accordingly, the State will progressively assume a predominant and direct responsibility for setting up new industrial undertakings and for developing transport facilities. It will also undertake State trading on an increasing scale. At the same time, as an agency for planned national development, in the context of the country's expanding economy, the private sector will have the opportunity to develop and expand. The principle of cooperation should be applied wherever possible and a steadily increasing portion of the activities of the private sector developed along cooperative lines.

6. The adoption of the socialist pattern of society as the national objective, as well as the need for planned and rapid development, require that all industries of basic and strategic importance, or in the nature of public utility services, should be in the public sector. Other industries which are essential and require investment on a scale which only the State, in present circumstances, could provide, have also to be in the public sector. The State has, therefore, to assume direct responsibility for the future development of industries over a wider area. Nevertheless, there are limiting factors which make it necessary at this stage for the State to define the field in which it will undertake sole responsibility for further development, and to make a selection of industries in the development of which it will play a dominant role. After considering all aspects of the problem, in consultation with the Planning Commission, the Government of India have decided to classify industries into three categories, having regard to the part which the State would play in each of them. These categories will inevitably overlap to some extent and too great a rigidity might defeat the purpose in view. But the basic principles and objectives have always to be kept in view and the general directions hereafter referred to be followed. It should also be remembered that it is always open to the State to undertake any type of industrial production.

7. In the first category will be industries the future development of which will be the exclusive responsibility of the State. The second category will consist of industries, which will be progressively State-owned and in which the State will, therefore, generally take the initiative in establishing new undertakings, but in which private enterprise will also be expected to supplement the effort of the State. The third category will include all the remaining industries, and their future development will, in general, be left to the initiative and enterprise of the private sector.

8. Industries in the first category have been listed in Schedule A of this Resolution. All new units in these industries, save where establishment in the private sector has already been approved, will be set up only by the State. This does not preclude the expansion of the existing privately owned units, or the possibility of the State securing the cooperation of private enterprise in the establishment of new units when the national interests so require. Railways and air transport, arms and ammunition and atomic energy will, however, be developed as Central Government monopolies. Whenever cooperation with private enterprise is necessary, the State will ensure, either through majority participation in the capital or otherwise, that it has the requisite powers to guide the policy and control the operations of the undertaking.

9. Industries in the second category will be those listed in Schedule B. With a view to accelerating their future development, the State will increasingly establish new undertakings in these industries. At the same time, private enterprise will also have the opportunity to develop in this field, either on its own or with State participation.

10. All the remaining industries will fall in the third category, and it is expected that their development will be undertaken ordinarily through the initiative and enterprise of the private sector, though it will be open to the State to start any industry even in this category. It will be the policy of the State to facilitate and encourage the development of these industries in the private sector, in accordance with the programmes formulated in successive Five Year Plans, by ensuring the development of transport, power and other services, and by appropriate fiscal and other measures. The State will continue to foster institutions to provide financial aid to these industries, and

special assistance will be given to enterprises organised on cooperative lines for industrial and agricultural purposes. In suitable cases, the State may also grant financial assistance to the private sector. Such assistance, especially when the amount involved is substantial, will preferably be in the form of participation in equity capital, though it may also be in part, in the form of debenture capital.

11. Industrial undertakings in the private sector have necessarily to fit into the framework of the social and economic policy of the State and will be subject to control and regulation in terms of the Industries (Development and Regulation) Act and other relevant legislation. The Government of India, however, recognise that it would, in general, be desirable to allow such undertakings to develop with as much freedom as possible, consistent with the targets and objectives of the national plan. When there exist in the same industry both privately and publicly owned units, it would continue to be the policy of the State to give fair and non-discriminatory treatment to both of them.

12. The division of industries into separate categories does not imply that they are being placed in water-tight compartments. Inevitably, there will not only be an area of overlapping but also a great deal of dovetailing between industries in the private and the public sectors. It will be open to the State to start any industry not included in Schedule A and Schedule B when the needs of planning so require or there are other important reasons for it. In appropriate cases, privately owned units may be permitted to produce an item falling within schedule A for meeting their own requirements or as by-products. There will be ordinarily no bar to small privately owned units undertaking production, such as the making of launches and other light-craft, generation for power for local needs and small-scale mining. Further, heavy industries in the public sector may obtain some of their requirements of lighter components from the private sector, while the private sector in turn would rely for many of its needs on the public sector. The same principle would apply with even greater force to the relationship between large-scale and small industries.

13. The Government of India would, in this context, stress the role of cottage and village and small-scale industries in the development of the national economy. In relation to some of the problems that need urgent solutions, they offer some distinct advantages. They provide immediate large-scale employment; they offer a method of ensuring a more equitable distribution of the national income and they facilitate an effective mobilisation of resources of capital and skill which might otherwise remain unutilised. Some of the problems that unplanned urbanisation tends to create will be avoided by the establishment of small centres of industrial production all over the country.

14. The State has been following a policy of supporting cottage and village and small-scale industries by restricting the volume of production in the large-scale sector, by differential taxation, or by direct subsidies. While such measures will continue to be taken, whenever necessary, the aim of the State policy will be to ensure that the decentralised sector acquires sufficient vitality to be self-supporting and its development is integrated with that of large-scale industry. The State will, therefore, concentrate on measures designed to improve the competitive strength of the small-scale producer. For this it is essential that the technique of production should be constantly improved and modernised, the pace of transformation being regulated so as to avoid, as far as possible, technological unemployment. Lack of technical and financial assistance, of suitable working accommodation and inadequacy of facilities for repair and maintenance are among the serious handicaps of small-scale producers. A start has been made with the establishment of industrial estates and rural community workshops to make good these deficiencies. The extension of rural electrification and the availability of power at prices which the workers can afford will also be of considerable help. Many of the activities relating to small-scale production will be greatly helped by the organisation of industrial cooperatives. Such cooperatives should be encouraged in every way and the State should give constant attention to the development of cottage and village and small-scale industry.

15. In order that industrialisation may benefit the economy of the country as a whole, it is important that disparities in levels of development between different regions should be progressively reduced. The lack of industries in different parts of the country is very often determined by factors such as the availability of the necessary raw materials or other natural resources. A concentration of industries in certain areas has also been due to the ready availability of power, water supply and transport facilities which have been developed there. It is one of the aims of national planning to ensure that these facilities are steadily made available to areas which are at present lagging behind industrially or where there is greater need for providing opportunities for employment, provided the location is otherwise suitable. Only by securing a balanced and coordinated development of the industrial and

the agricultural economy in each region, can the entire country attain higher standards of living.

16. This programme of industrial development will make large demands on the country's resources of technical and managerial personnel. To meet these rapidly growing needs for the expansion of the public sector and for the development of village and small-scale industries, proper managerial and technical cadres in the public services are being established. Steps are also being taken to meet shortages at supervisory levels, to organise apprenticeship schemes of training on a large-scale both in public and in private enterprises, and to extend training facilities in business management in universities and other institutions.

17. It is necessary that proper amenities and incentives should be provided for all those engaged in industry. The living and working conditions of workers should be improved and their standards of efficiency raised. The maintenance of industrial peace is one of the prime requisites of industrial progress. In a socialist democracy labour is a partner in the common task of development and should participate in it with enthusiasm. Some laws governing industrial relations have been enacted and a broad common approach has developed with the growing recognition of the obligations of both management and labour. There should be joint consultation and workers and technicians should, wherever possible, be associated progressively in management. Enterprises in the public sector have to set an example in this respect.

18. With the growing participation of the State in industry and trade, the manner in which these activities should be conducted and managed assumes considerable importance. Speedy decisions and a willingness to assume responsibility are essential if these enterprises are to succeed. For this, wherever possible, there should be decentralisation of authority and their management should be along business lines. It is to be expected that public enterprises will augment the revenues of the State and provide resources for further development in fresh fields. But such enterprises may sometimes incur losses. Public enterprises have to be judged by their total results and in their working they should have the largest possible measure of freedom.

19. The Industrial Policy Resolution of 1948 dealt with a number of other subjects which have since been covered by suitable legislation or by authoritative statements of policy. The division of responsibility between the Central Government and the State Governments in regard to industries has been set out in the Industries (Development and Regulation) Act. The Prime Minister, in his statement in Parliament on 6 April 1949, has enunciated the policy of the State in regard to foreign capital. It is, therefore, not necessary to deal with these subjects in this resolution.

20. The Government of India trust that this restatement of their Industrial Policy will receive the support of all sections of the people and promote the rapid industrialisation of the country.

SCHEDULE A

1. Arms and ammunition and allied items of defence equipment.
2. Atomic energy.
3. Iron and steel.
4. Heavy castings and forgings of iron and steel.
5. Heavy plant and machinery required for iron and steel production, for mining, for machine tool manufacture and for such other basic industries as may be specified by the Central Government.
6. Heavy electrical plant including large hydraulic and steam turbines.
7. Coal and lignite.
8. Mineral oils.
9. Mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamond.
10. Mining and processing copper, lead, zinc, tin, molybdenum and wolfram.
11. Minerals specified in the Schedule to the Atomic Energy (Control of Production and Use) Order, 1953.
12. Aircraft.
13. Air transport.
14. Railway transport.
15. Shipbuilding.
16. Telephones and telephone cables, telegraph and wireless apparatus (excluding radio receiving sets).
17. Generation and distribution of electricity.

SCHEDULE B

1. All other minerals except "minor minerals" as defined in Section 3 of the Minerals Concession Rules 1949.
2. Aluminium and other non-ferrous metals not included in Schedule 'A'.
3. Machine tools.
4. Ferro-alloys and tool steels.
5. Basic and intermediate products required by chemical industries such as the manufacture of drugs, dye-stuffs and plastics.
6. Antibiotics and other essential drugs.
7. Fertilisers.
8. Synthetic rubber.
9. Carbonisation of coal.
10. Chemical pulp.
11. Road transport
12. Sea transport.

PRESS NOTE

INDUSTRIAL POLICY : GOVERNMENT'S DECISIONS

New Delhi 2 February 1973

Government have carefully reviewed their policies relating to industrial development in the light of the experience gained in the implementation of the Industrial Licensing Policy of 18 February 1970 and in the context of the approach to the Fifth Five Year Plan. The Industrial Policy Resolution of 1956 has laid down the basic principles that govern Government's approach towards industrial development. These principles have been derived from the Directive Principles of State Policy contained in the Constitution and from the adoption by Parliament in December 1954 of the socialist pattern of society as the objective of social and economic policy. The Industrial Policy Resolution of 1956 will continue to govern Government's policies for achieving the objectives of growth, social justice and self-reliance in the industrial sphere.

Role of Public Sector

2. As pointed out in the Industrial Policy Resolution the adoption of the socialist pattern of society as the national objective, as well as the need for planned and rapid development, requires that all industries of basic and strategic importance, or in the nature of public utility services, should be in the public sector. Other industries which are essential and require investment on a scale which only the State, in the present circumstances could provide, have also to be in the public sector. In the context of the approach to the Fifth Five Year Plan, the State will have to take direct responsibility for the future development of industries over a wide field in order to promote the cardinal objectives of growth, social justice, self-reliance and satisfaction of basic minimum needs.

Licensing Policy

3. The Industrial Licensing Policy of 18 February 1970 was formulated in the context of the Fourth Plan. It also precedes the coming into effect of the Monopolies and Restrictive Trade Practices Act 1969. Government consider it desirable to up date the industrial licensing policy in order to reflect the approach to the Fifth Plan and taking into account the legal and institutional arrangements that are now available for the effective control of the concentration of economic power. The intention in amending the Industrial Licensing Policy at this time is that greater clarity in the investment climate will facilitate the priorities and production objectives in the Fifth Plan.

4. The Industrial Licensing Policy of 1970 places certain restrictions on undertakings belonging to the larger industrial houses as defined in the report of the Industrial Licensing Policy Inquiry Committee (ILPIC). Such concerns are ordinarily excluded from participating in sectors other than the core and heavy investment sectors leaving the opportunities in the remaining sectors primarily to other classes of entrepreneurs. The definition of larger industrial houses adopted by the ILPIC was, however, on the basis of assets, along with assets of interconnected undertakings, exceeding Rs. 35 crores. Government consider that the definition of larger industrial houses to be adopted for licensing restrictions should be in conformity in all respects with that adopted in the MRTP Act 1969. The definition adopted in that Act is on the basis of a lower limit of assets, along with assets of interconnected undertakings, of not less than Rs. 20 crores. The adoption of the lower limit of Rs. 20 crores as well as the definition of interconnected undertakings as provided in the MRTP Act 1969 will result in a more effective control on the concentration of economic power, it will also remove the contradiction between the definition of larger industrial houses for licensing purposes (which is based on the ILPIC report) and for the control of concentration of economic power (which is based on the MRTP Act 1969).

5. Government consider it desirable to consolidate the list of industries which are open, along with other applicants, for the participation of larger industrial houses (as defined in the MRTP Act). In the context

of the approach to the Fifth Plan, the core industries of importance to the national economy in the future, industries having direct linkages with such core industries, and industries with a long term export potential are all of basic, critical and strategic importance for the growth of the economy. A consolidated list of such industries is attached in Appendix I. Such of the industries included in Schedule A of the Industrial Policy Resolution 1956 will be reserved for the public sector. Larger houses will be eligible to participate in and contribute to the establishment of industries in the list included in Appendix I along with other applicants, provided that the item of manufacture is not one that is reserved for production in the public sector or in the small-scale sector. They will ordinarily be excluded from the industries not included in this list except where, as is permitted under existing arrangements, production is predominantly for exports.

6. Foreign concerns and subsidiaries and branches of foreign companies will be eligible to participate in the industries specified in Appendix I along with other applicants but will ordinarily be excluded from the industries not included in this list. They will also be entitled as at present to invest in industries where production is predominantly for exports. Their investments will be subject as hitherto to the "guidelines on the dilution of foreign equity" and will be examined with special reference to technological aspects, export possibilities and the over-all effect on the balance of payments.

Small-scale and Cooperative Sectors

7. In the implementation of the licensing policy, Government will ensure that licensing decisions conform to the growth profile of the Plan and that techno-economic and social considerations such as economies of scale, appropriate technology, balanced regional development and development of backward areas are fully reflected. Government's policy will continue to be to encourage competent small and medium entrepreneurs in all industries including those listed in Appendix I. Such entrepreneurs will be preferred *vis-a-vis* the larger industrial houses and foreign companies, in the setting up of new capacity. Licensing policy will seek to promote production of ancillaries, wherever feasible and appropriate, in the medium or small-scale sector, cooperatives and small and medium entrepreneurs will be encouraged to participate in the production of mass consumption goods with the public sector also taking an increasing role. Other investors will be allowed to participate in the production of mass consumption goods only if there are special factors such as sizable economies of scale resulting in reduced prices, technological improvements, large investment requirements, substantial export possibilities or as part of modernisation. Government also intend to enlarge and intensify a variety of positive measures designed to promote the growth of small and medium entrepreneurs.

8. The exemption limit from licensing provisions which now applies to substantial expansion and new undertakings upto Rs. 1 crore by way of fixed assets in land, buildings and machinery will be continued. This exemption will not apply to larger industrial houses and to dominant undertakings as defined in the MRTP Act and to foreign companies including their branches and subsidiaries. Along with making the definition of larger industrial houses consistent with the one adopted under the MRTP Act, Government have also decided that the exemption will not apply to existing licensed or registered undertakings having fixed assets exceeding Rs. 5 crores. Such undertakings will hereafter be subject to the licensing provisions of the Industries (Development and Regulation) Act 1951 in respect of new undertakings as well as expansion and diversifications in the delicensed sector. Government hope that these changes will act as a safeguard against the entry of large undertakings into areas that are primarily meant for small, medium and new entrepreneurs.

9. The existing policy of reservation for the small-scale sector (involving investment in machinery and equipment up to Rs. 7.5 lakhs,* and in the case of ancillary industries up to Rs. 10 lakhs†) will be continued. The area of such reservation will be extended consistent with potentialities and performance of the small-scale sector. The policy of encouragement to the cooperative sector will receive special emphasis in industries which process agricultural raw materials such as sugarcane, jute, cotton or produce agricultural inputs such as fertilisers. The cooperative sector is also ideally suited for the manufacture and distribution of mass consumption goods.

Joint Sector

10. Government's policy regarding the joint sector is derived from the Industrial Policy Resolution 1956 and the objective of reducing the concentration of economic power. In appropriate cases, the Central and State Governments have taken equity participation either directly or through their Corporations with private parties. Some joint sector units have come up in this way. This type of joint sector unit is a device which may be resorted

*raised to Rs. 10 lakhs with effect from 1st May, 1975

†raised to Rs. 15 lakhs with effect from 1st May, 1975

to in specific cases having regard to the production targets of the Plan. Each proposal for establishing a joint sector unit of this nature will have to be judged and decided on its merits in the light of Government's social and economic objectives. The joint sector will also be a promotional instrument, as for instance, in cases where State Governments go into partnership with new and medium entrepreneurs in order to guide them in developing a priority industry.

11. Government specifically wish to clarify that the joint sector will not be permitted to be used for the entry of larger houses, dominant undertakings and foreign companies in industries in which they are otherwise precluded on their own. In all the different kinds of joint sector units, the Government will ensure for itself an effective role in guiding policies, management and operations, the actual pattern and mode being decided as appropriate in each case.

12. Government hope that with these clarifications there will be greater certainty in the investment climate and that all sections of the community will come forward to play their due role in the promotion of growth with self-reliance within the accepted framework of a socialist pattern of society. The changes now proposed are designed to stimulate growth in all priority industries of importance to the Fifth Plan subject to a more effective enforcement of social objectives. It will be Government's objective to maintain a durable framework of licensing and other connected policies consistent with the basic principles of the Industrial Policy Resolution of 1956 and to further streamline licensing and connected procedures, wherever necessary, so as to expedite the investment process in all its stages.

(Ministry of Industrial Development, Government of India, New Delhi, 13 Magha 1894 / 2 February 1973).

Appendix

(Note: The classification of industries follows the First Schedule to the Industries (Development and Regulation) Act 1951. Items of manufacture reserved for the public sector under Schedule A to the Industrial Policy Resolution 1956 or for production in the small-scale sector as may be notified from time to time will be excluded from the application of the list).

1. Metallurgical Industries

- (1) Ferro alloys
- (2) Steel castings and forgings
- (3) Special steels
- (4) Non-ferrous metals and their alloys.

2. Boilers and Steam Generating Plants

3. Prime Movers (other than Electrical Generators)

- (1) Industrial turbines
- (2) Internal combustion engines.

4. Electrical Equipment

- (1) Equipment for transmission and distribution of electricity
- (2) Electrical motors
- (3) Electrical furnaces
- (4) X-ray equipment
- (5) Electronic components and equipment.

5. **Transportation**
 - (1) Mechanised sailing vessels upto 1000 DWT
 - (2) Ship ancillaries
 - (3) Commercial vehicles.
6. Industrial machinery.
7. Machine tools.
8. **Agricultural machinery**
 - Tractors and power tillers.
9. Earthmoving machinery.
10. Industrial instruments: indicating, recording and regulating devices for pressure, temperature, rate of flow, weights, levels and the like.
11. Scientific instruments.
12. Nitrogenous and phosphatic fertilisers falling under (1) Inorganic fertilisers' under '18. Fertilisers' in the First Schedule to the ID&R Act 1951.
13. **Chemicals (other than Fertilisers)**
 - (1) Inorganic heavy chemicals
 - (2) Organic heavy chemicals
 - (3) Fine chemicals, including photographic chemicals
 - (4) Synthetic resins and plastics
 - (5) Synthetic rubbers
 - (6) Man-made fibres
 - (7) Industrial explosives
 - (8) Insecticides, fungicides, weedicides and the like
 - (9) Synthetic detergents
 - (10) Miscellaneous chemicals (for industrial use, only).
14. Drugs and pharmaceuticals.
15. Paper and pulp including paper products.
16. Automobile tyres and tubes.
17. Plate glass.
18. **Ceramics**
 - (1) Refractories
 - (2) Furnace lining bricks—acidic, basic and neutral.
19. **Cement Products**
 - (1) Portland cement
 - (2) Asbestos cement.

THE FIRST SCHEDULE TO THE INDUSTRIES (DEVELOPMENT AND REGULATION) ACT 1951

Any industry engaged in the manufacture or production of any of the articles mentioned under each of the following headings or sub-heading, *namely*,

1. Metallurgical Industries

A. Ferrous

- (1) Iron and steel (metal).
- (2) Ferro-alloys.
- (3) Iron and steel castings and forgings.
- (4) Iron and steel structurals.
- (5) Iron and steel pipes.
- (6) Special steels.
- (7) Other products of iron and steel.

B. Non-ferrous

- (1) Precious metals, including gold and silver, and their alloys.
- (1A) Other non-ferrous metals and their alloys.
- (2) Semi-manufactures and manufactures.

2. Fuels

- (1) Coal, lignite, coke and their derivatives.
- (2) Mineral oil (crude oil) motor and aviation spirit, diesel oil, kerosene oil, fuel oil, diverse hydro-carbon oils and their blends including synthetic fuels, lubricating oils and the like.
- (3) Fuel gases—(coal gas, natural gas and the like).

3. Boilers and Steam Generating Plants

Boilers and steam generating plants.

4. Prime Movers (other than Electrical Generators)

- (1) Steam engines and turbines.
- (2) Internal combustion engines.

5. Electrical Equipment

- (1) Equipment for generation, transmission and distribution of electricity, including transformers.
- (2) Electrical motors.
- (3) Electrical fans.
- (4) Electrical lamps.
- (5) Electrical furnaces.

- (6) Electrical cables and wires.
- (7) X-ray equipment.
- (8) Electronic equipment.
- (9) House-hold appliances such as electric irons, heaters and the like.
- (10) Storage batteries.
- (11) Dry cells.

6. Telecommunications

- (1) Telephones.
- (2) Telegraph equipment.
- (3) Wireless communication apparatus.
- (4) Radio receivers, including amplifying and public address equipment.
- (5) Television sets.
- (6) Teleprinters.

7. Transportation

- (1) Aircraft.
- (2) Ships and other vessels drawn by power.
- (3) Railway locomotives.
- (4) Railway rolling stock.
- (5) Automobiles (motor cars, buses, trucks, motor cycles, scooters and the like).
- (6) Bicycles.
- (7) Others, such as fork lift trucks and the like.

8. Industrial Machinery

A. Major Items of Specialised Equipment used in Specific Industries

- (1) Textile machinery (such as spinning frames, carding machines, powerlooms and the like) including textile accessories.
- (2) Jute machinery.
- (3) Rayon machinery.
- (4) Sugar machinery.
- (5) Tea machinery.
- (6) Mining machinery.
- (7) Metallurgical machinery.
- (8) Cement machinery.
- (9) Chemical machinery.
- (10) Pharmaceuticals machinery.
- (11) Paper machinery.

B. General Items of Machinery used in several Industries, such as the equipment required for various "Unit Processes"

- (1) Size reduction equipment—crushes, ball mills and the like.
- (2) Conveying equipment—bucket elevators, skip hoists, cranes, derricks and the like.
- (3) Size separation units—screens, classifiers and the like.
- (4) Mixers and reactors—kneading mills, turbo mixers and the like.
- (5) Filtration equipment—filter presses, rotary filters and the like.

- (6) Centrifugal machines.
- (7) Evaporators.
- (8) Distillation equipment.
- (9) Crystallisers.
- (10) Driers.
- (11) Power driven pumps—reciprocating, centrifugal and the like.
- (12) Air and gas compressors and vacuum pipes (excluding electrical furnaces).
- (13) Refrigeration plants for industrial use.
- (14) Fire fighting equipment and appliances including fire engines.

C. Other Items of Industrial Machinery

- (1) Ball, roller and tapered bearings.
- (2) Speed reduction units.
- (3) Grinding wheels and abrasives.

9. Machine Tools

Machine tools.

10. Agricultural Machinery

- (1) Tractors, harvestors and the like.
- (2) Agricultural implements.

11. Earth-moving Machinery

Bulldozers, dumpers, scrapers, loaders, shovels, drag lines, bucket wheel excavators, road rollers and the like.

12. Miscellaneous Mechanical and Engineering Industries

- (1) Plastic moulded goods.
- (2) Hand tools, small tools and the like.
- (3) Razor blades.

13. Commercial, Office and House-hold Equipment

- (1) Typewriters.
- (2) Calculating machines.
- (3) Air conditioners and refrigerators.
- (4) Vacuum cleaners.
- (5) Sewing and knitting machines.
- (6) Hurricane lanterns.

14. Medical and Surgical Appliances

Surgical instruments—sterilisers, incubators and the like.

15. Industrial Instruments

- (1) Water meters, steam meters, electricity meters and the like.
- (2) Indicating, recording and regulating devices for pressure, temperature, rate of flow, weights, levels and the like.
- (3) Weighing machines.

16. Scientific Instruments

Scientific instruments.

17. Mathematical Surveying and Drawing Instruments

Mathematical, surveying and drawing instruments.

18. Fertilisers

- (1) Inorganic fertilisers.
- (2) Organic fertilisers.
- (3) Mixed fertilisers.

19. Chemicals (other than Fertilisers)

- (1) Inorganic heavy chemicals.
- (2) Organic heavy chemicals.
- (3) Fine chemicals including photographic chemicals.
- (4) Synthetic resins and plastics.
- (5) Paints, varnishes and enamels.
- (6) Synthetic rubbers.
- (7) Man-made fibres including regenerate cellulose-rayon, nylon and the like.
- (8) Coke oven by-products.
- (9) Coal tar distillation products like naphthalene, anthracene and the like.
- (10) Explosives including gun powder and safety fuses.
- (11) Insecticides, fungicides, weedicides and the like.
- (12) Textile auxiliaries.
- (13) Sizing materials including starch.
- (14) Miscellaneous chemicals.

20. Photographic Raw Film and Paper

- (1) Cinema film.
- (2) Photographic amateur film.
- (3) Photographic printing paper.

21. Dye-stuffs

Dye-stuffs.

22. Drugs and Pharmaceuticals

Drugs and Pharmaceuticals.

23. Textiles (including those Dyed, Printed or otherwise Processed)

- (1) made wholly or in part of cotton, including cotton yarn, hosiery and rope;
- (2) made wholly or in part of jute, including jute, twine and rope;
- (3) made wholly or in part of wool, including wool tops, woollen yarn hosiery, carpets and druggets;
- (4) made wholly or in part of silk, including silk yarn and hosiery; and
- (5) made wholly or in part of synthetic, artificial (man-made) fibres, including yarn and hosiery of such fibres.

24. Paper and Pulp including Paper Products

- (1) Paper—writing, printing and wrapping.
- (2) Newsprint.
- (3) Paper board and straw board.
- (4) Paper for packaging (corrugated paper, kraft paper, paper bags, paper containers and the like).
- (5) Pulp—wood pulp, mechanical, chemical, including dissolving pulp.

25. Sugar

Sugar.

26. Fermentation Industries

- (1) Alcohol.
- (2) Other products of fermentation industries.

27. Food Processing Industries

- (1) Canned fruits and fruit products.
- (2) Milk foods.
- (3) Malted foods.
- (4) Flour.
- (5) Other processed foods.

28. Vegetable Oils and Vanaspati

- (1) Vegetable oils, including solvent extracted oils.
- (2) Vanaspati.

29. Soap, Cosmetics and Toilet Preparations

- (1) Soaps.
- (2) Glycerine.
- (3) Cosmetics.
- (4) Perfumery.
- (5) Toilet preparations.

30. Rubber Goods

- (1) Tyres and tubes.
- (2) Surgical and medicinal products including prophylatics.
- (3) Footwear.
- (4) Other rubber goods.

31. Leather, Leather Goods and Pickers

Leather, leather goods and pickers.

32. Glue and Gelatin

Glue and gelatin.

33. Glass

- (1) Hollow-ware.

- (2) Sheet and plate glass.
- (3) Optical glass.
- (4) Glass wool.
- (5) Laboratory ware.
- (6) Miscellaneous ware.

34. Ceramics

- (1) Fire bricks.
- (2) Refractories.
- (3) Furnace lining bricks—acidic, basic and neutral.
- (4) China ware and pottery.
- (5) Sanitary ware.
- (6) Insulators.
- (7) Tiles.

35. Cement and Gypsum Products

- (1) Portland cement.
- (2) Asbestos cement.
- (3) Insulating boards.
- (4) Gypsum boards, wall boards and the like.

36. Timber Products

- (1) Plywood.
- (2) Hardboard, including fibre-board, chip-board and the like.
- (3) Matches.
- (4) Miscellaneous (furniture components, bobbins, shuttles and the like).

37. Defence Industries

Arms and ammunition.

38. Miscellaneous Industries

- (1) Cigarettes.
- * (2) Linoleum, whether felt-based or jute-based.

Explanation 1.—The articles specified under each of the heading Nos. 3, 4, 5, 6, 7, 8, 10, 11 and 13 shall include their component parts and accessories.

Explanation 2.—The articles specified under each of the heading Nos. 18, 19, 21, and 22 shall include the intermediates required for their manufacture.

*Inserted *vide* Industries (Development and Regulation) Amendment Act 1973 (No. 67 of 1973).

NOTIFICATION

New Delhi, 16 February 1973

S.O. 98(E)/IDRA/29B/73/1: In exercise of the powers conferred by sub-section (1) of section 29B of the Industries (Development and Regulation) Act 1951 (65 of 1951) (hereinafter referred to as the said Act), the Central Government hereby exempts, subject to the conditions, if any, hereinafter specified, the classes of industrial undertakings specified below from the operation of the provisions of—

- section 10 which relates to the registration of industrial undertakings,
 - section 11 which relates to the licensing of new industrial undertakings,
 - section 11A which relates to licence for producing or manufacturing new articles, and
 - section 13 which relates to further provisions for licensing of industrial undertakings,
- of the said Act and the relevant rules made thereunder:

Small scale Units

- (1) Undertakings having investments in fixed assets in plant and machinery not exceeding Rs. 10 lakhs.*

Ancillaries

- (2) Undertakings having investments in fixed assets in plant and machinery not exceeding Rs. 15 lakhs* and engaged in—
- (a) the manufacture of parts, components, sub-assemblies, toolings or intermediates; or
 - (b) the rendering of services; and supplying or rendering, or proposing to supply or render 50% of their production or the total services as the case may be, to other units for production of other articles;

Provided that no such undertaking shall be a subsidiary of, or owned or controlled by any other undertaking.

Other Undertakings

- (3) Other undertakings, if the proposed investment in an undertaking in fixed assets in land, buildings, plant and machinery for establishing a new undertaking or for effecting substantial expansion or for manufacture of new articles does not exceed Rs. 1 crore, subject to the following conditions, namely—

Investment Limit Applicable to one or more Activities

- (a) the limit of Rs. 1 crore shall apply to one or more of the activities specified above, whether singly or taken together, and whether in one or more stages;

Existing Undertakings which are not registered etc., under the Act

- (b) if an undertaking is an existing undertaking not already covered by registration, licence or permission under the said Act, the proposed investment and the existing investment together do not result in the total investment exceeding Rs. 1 crore;

Existing Undertakings which are registered etc., under the Act

- (c) if an undertaking is an existing undertaking already covered by registration, licence or permission under the said Act, the existing investments together with the additional investments covered by approvals, permissions or licences already obtained by it and the proposed investment do not result in the total investment exceeding Rs. 5 crores.**

*Inserted vide Notification No. S.O. 220 (E).....IDRA/29B/75 dated 19.5.75

**Amended vide notification No. S.O. 368(E)/IDRA/29B/75 dated 21.7.75.

***Foreign Exchange Limits**

(d) the proposed investment does not require foreign exchange in excess of the following limits:

- (i) 5 per cent of the ex-factory value of the annual production arising from such investment or Rs. 5 lakhs, *whichever is less*, for the import of raw materials (other than steel and aluminium) required for such manufacture; or
- (ii) 10 per cent of the ex-factory value of the annual production arising from such investment or Rs. 5 lakhs, *whichever is less*, in any year after three years of the commencement of production, for the import of parts and components for such manufacture;

Articles Reserved for Small-scale Sector and Other Articles**

- (e) no such undertaking shall be eligible for exemption for the manufacture of any of the articles specified in Schedule I (articles reserved for the small-scale sector)** or schedule V (other articles).

PROVIDED THAT no undertaking referred to in item (1), (2) or (3) above shall be eligible for exemption under this notification if it falls under any of the categories of undertakings specified in schedule II or if the article proposed to be manufactured relates to any of the industries specified in Schedule III (being industries specified in Schedule A of the Industrial Policy Resolution 1956) or Schedule IV (being industries requiring special regulation).

2. This notification supersedes the notifications of the Government of India specified below:

- (1) No. S.O. 713/IDRA/29B/70/1, dated 19 February 1970 of the Ministry of Industrial Development, Internal Trade and Company Affairs, (Department of Industrial Development).
- (2) No. S.O. 912/IDRA/29B/70/3, dated 28 February 1970 of the Ministry of Industrial Development, Internal Trade and Company Affairs, (Department of Industrial Development).
- (3) No. S.O. 2443/IDRA/29B/70/5, dated 18 July 1970 of the Ministry of Industrial Development and Internal Trade, (Department of Industrial Development).

*****Provisions for Carrying on Business**

3. In pursuance of sub-section (2) of section 29B of the said Act, the Central Government hereby specifies a period of six months from the date of publication of this notification as the period after the expiry of which no owner of any industrial undertaking, which was previously exempted from the operation of sections 10, 11, 11A and 13 of the said Act and which is not so exempt by virtue of this notification, shall carry on the business of such undertaking, except under and in accordance with a licence issued in this behalf by the Central Government and in the case of State Governments except under and in accordance with the previous permission of the Central Government.

[File No. 12(21)/Lic. Pol/73]

Joint Secretary to the Government of India

*amended *vide* notification No. 671(E)/IDRA/73/3 dated 31.10.73.

**added *ibid*.

***Note I: Industrial undertakings other than those in the small-scale and ancillary sector listed at serial Nos. 1 to 10 of Schedule V have to obtain COB licences by 25.7.74 (Notification No. 66 (E)/IDRA/74/1 dated 25.1.74).

Note II: Industrial undertakings other than those in the small-scale and ancillary sector listed at serial No. 11 of Schedule V have to obtain COB licence by 25.8.74 (Notification No. 122(E)/IDRA/74/3 dated 26.2.74).

Note III: Industrial undertakings other than those in the small-scale and ancillary sector listed at serial No. 12 of Schedule V have to obtain COB licence by 28.2.75 (Notification No. 512(E)/IDRA/74/13 dated 29.8.1974).

Note IV: Industrial undertakings other than those in the small-scale and ancillary sector listed at serial No. 13 of schedule V have to obtain COB licence by 11.8.75.

Note V: Industrial undertakings listed at serial No. 7 of Schedule IV have to obtain COB licence by 25.8.74 (*ibid*).

Note VI: Industrial undertakings other than small-scale and ancillary units engaged in the manufacture of items listed at serial Nos. 31 to 38, 52 and 53, 55 to 62, 127 to 129, 134 and 139 of Schedule I have to obtain COB licence by 25.8.74. These items added *vide* Notification No. 123(E)/IDRA/29B/74/2 dated 26.2.1974.

SCHEDULE I

(Articles Reserved for the Small-scale Sector)

I. Mechanical Engineering Industries

1. Barbed wire.
2. Beam scale.
3. Bolts and nuts (except for high tensile and other special type).
4. Conduit pipes—metallic
5. Expanded metal.
6. Hand numbering machines.
7. Hand stapling machines.
8. Hypodermic needles.
9. Insecticide dusters and sprayers (manual).
10. Machine screws (except for socket head and special types).
11. Machine shop vices.
12. Rivets of all types (including bifurcated).
13. Rolling shutters.
14. Steel wool.
15. Student's microscopes.
16. Water meters.
17. Welded wire mesh (except for expansion of existing units).
18. Wire brushes and fibre brushes.
19. Wire products—all wire products such as wire nails, hob nails, panel pins, horse shoe nails.
20. Wood screws.
21. Hydraulic jacks below 30 tonnes capacity.
22. Electric transmission line hardware (other than those manufactured in malleable castings).
23. Pressure gauges (upto 50 lbs. per sq. inch).
24. Grease nipples and grease guns.
25. Chaff cutter blades.
26. Metal fittings for garments and leather goods.
27. Weights.
28. Domestic utensils (other than stainless steel).
29. Steel measuring tapes.
30. Household knitting machines.
31. Agricultural implements —
 - (a) Hand-operated tools and implements.
 - (b) Animal driven implements.

32. Diesel engines upto 15 HP (slow speed).
33. Bicycle tube valves.
34. Drawing and mathematical instruments and survey instruments excluding theodolite.
35. Weighing machines except for sophisticated items.
36. Boosters.
37. Wire gauge and wire netting thicker than 100 mesh size.
38. Centrifugal pumps upto size 4" and 4".
39. Gun metal bushes.
40. Hurricane lanterns.
41. Pressure die casting (upto 4 kg.)
42. Drums and barrels (upto 50 litre capacity).
43. Tin containers—unprinted (other than OTS)—cans upto 18 litre capacity.

II. Electrical Industries

44. Domestic electrical appliances and accessories such as electric iron, roasters, heaters, washing machines, etc. other than vacuum cleaners, industrial washing and dry-cleaning machines, etc.*
45. (a) Electrical wiring accessories;
(b) Electrical light fittings (such as chokes, starters, reflectors, etc.)
46. Metal clad switches upto 30 amps.
47. Miniature bulbs—
(a) Miniature vacuum bulbs.
(b) Torch bulbs.
(c) Radio panel bulbs.
(d) Cycle dynamo bulbs.
(e) Decoration bulbs.
48. Battery cell tester.
49. AA and ACSR conductors (upto and including 19 strands).
50. PVC and VIR wires of domestic type.
51. Room coolers (desert type).
52. Emergency lamps.
53. Voltage stabilisers—domestic types.

III. Electronic Industries

54. Telescopic aerials (for radio receivers).
55. IF transformers.
56. Air-trimmers for professional use.
57. Assembly of loud-speakers.
58. Hearing aids.
59. Electronic flash guns.
60. Amplifiers for entertainment and public address system.
61. Low-cost radio receivers (below Rs. 200/-).
62. Transistor headers.

*List of Items falling under domestic electrical appliances is given in Annexure II of this Appendix

IV. Automobile Ancillary Industries

63. Automobile radiators (except for expansion on merits).
64. Electric horns.
65. Exhaust mufflers.
66. Auto leaf springs.
67. Fuel tank caps.
68. Fuel lines.
69. Wiring harness.
70. Tail lamp assembly.
71. Side lamp assembly.
72. Stop lamp assembly.
73. Horn buttons.
74. Bulb horn.
75. Seats for bus and trucks.
76. Ornamental fittings.
77. Rear view mirrors.
78. Sun shades.
79. Luggage carrier.-
80. Tyre inflators (both hand and foot-operated).
81. Ash trays.
82. Hub caps.
83. Wind shield wipers (arms and blades only).
84. Electrical fuses.
85. Electrical fuse boxes.
86. Battery cables and fittings.
87. Spokes and nipples.
88. Steering wheels.
89. Spot lamp assembly.
90. Sun visor.

V. Garage Equipments

91. Armature tester.
92. Battery terminal lifters.
93. Condensors and resistance testers.
94. Fender spoons and hammers.
95. Feeler gauges.
96. Flaring tools.
97. Gear flushers.
98. Puller of all types.
99. Screw extractors.
100. Spark plug tester and cleaners.
101. Toe in gauges.

102. Stud removers (extractors).
103. Tyre valve pull out tools.
104. Tube cutters.
105. Flanging tools.
106. Valve lifters.
107. Valve replacing and resetting tools.
108. Camber testing equipment.
109. Ring expanders.
110. Ring compressor.

VI. Chemical Industries

111. Bichromates (except for exports).
112. Dyes— i) Azo dyes (directs and acids), and
ii) Basic dyes.
113. Fire-works.
114. Formulated perfumery compounds.
115. Laundry soap.
116. Paints and varnishes—dry distempers, red lead, red oxide, blacks, graphite paints, all paste paints.
117. Palm rosa oil.
118. Pine oil (except for composite schemes).
119. Plaster boards.
120. Tooth paste.
121. Zinc oxide. (*by conversion of metallic zinc only)
122. Sodium silicate.
123. Cashew shell oil.
124. Para-dichloro benzene balls.
125. Potassium silicate.
126. Calcium silicate.
127. Chlorinated paraffin wax.
128. Dimethyl sulphate based on methyl alcohol.
129. Pyrazolone.

VII. Glass and Ceramic Industries

130. Glass hollow-ware by semi-automatic process.
131. Roofing, flooring and glazed tiles (except plastic and ceramic tiles of sizes 4''x 4'' and above).
132. Thermometers (upto 150°C).
133. Low tension insulators.
134. Asbestos pipes and fittings (for house-hold purposes only and according to ISI specification).

VIII. Leather-based Industries

135. Leather footwear (except for expansion of the existing units for exports and new units for exports).

*Inserted vide notification No. S.O.

IDRA/29B/73/2 dated 18.6.73.

IX. Plastic-based Industries

136. Plastic processed products—

- i) Bottle caps, buttons, lamp-shade, etc., produced by the compression moulding technique;
- ii) Plastic articles manufactured from plastic sheets, rods or tubes by the fabrication technique excluding the technique of vacuum forming;
- iii) Polythelene films (films with a thickness of less than 0.10 mm) and products from the film such as coloured printed film and bags;
- iv) Blow-moulded containers and other similar products manufactured by the blow moulding technique (except for captive use PVC containers and change over by existing units manufacturing metal containers to plastic containers);
- v) Spectacles frames from sheets by fabrication technique or by injection moulding;
- vi) Manufacture of polyester sheets for buttons and the processing of the sheets so produced to manufacture buttons.

137. Full PVC footwear (chappals, sandals and shoes) except for export by pre-dominantly export-oriented units.

138. Flash light torch cases (plastic).

139. HD polyethylene monofilament yarn.

X. Rubber-based Industries

140. Surgical gloves (except plastic).

141. Cycle tyres and tubes.

142. Rubberised cloth.

XI. Wood-based Industries

143. Safety matches.

144. Truck body building (wooden structure).

XII. Miscellaneous

145. Absorbent cotton.

146. Cotton measuring tapes.

147. Paper conversion products.*

*Note:—*30 additional items not covered by the First Schedule to the Industries (Development and Regulation) Act, have also been reserved for the Small-scale Sector *vide* Press Note dated 26 February 1974. A list of these items is attached as annexure I to this appendix.

*List of items falling under 'Paper conversion products' given in Annexure III of this Appendix.

SCHEDULE II

(Categories of Undertakings not Eligible for Exemption)

- (1) Undertakings to which Chapter III of the Monopolies and Restrictive Trade Practices Act 1969, (54 of 1969) applies.
- (2) Undertakings owned by foreign companies, their branches or subsidiaries or by companies in respect of which more than 50 per cent of the paid-up equity share capital is held directly or indirectly by foreign companies, their branches or subsidiaries, or by foreign nationals or non-resident Indians.

SCHEDULE III

(Industries Specified in Schedule A of the Industrial Policy Resolution 1956)

1. Arms and ammunition and allied items of defence equipment.
2. Atomic energy.
3. Iron and steel.
4. Heavy castings and forgings of iron and steel.
5. Heavy plant and machinery required for iron and steel production, for mining, for machine tool manufacture and for such other basic industries as may be specified by the Central Government.
6. Heavy electrical plant including large hydraulic and steam turbines.
7. Coal and lignite.
8. Mineral oils.
9. Mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamond.
10. Mining and processing copper, lead, zinc, tin, molybdenum and wolfram.
11. Minerals specified in the Schedule to the Atomic Energy (Control of Production and Use) Order 1953.
12. Aircraft.
13. Air transport.
14. Railway transport.
15. Shipbuilding.
16. Telephones and telephone cables, telegraph and wireless apparatus (excluding radio receiving sets).
17. Generation and distribution of electricity.

SCHEDULE IV

(Industries Requiring Special Regulation)

1. Coal falling under '(1), Coal, lignite, coke and their derivatives' under the heading "2. Fuels";
2. Textile, falling under the heading "23. Textiles (including those dyed, printed or otherwise processed) manufactured, produced or processed on powerlooms";
3. Milk foods falling under '(2) Milk foods'; Malted foods falling under '(3) Malted Foods' and Roller flour milling falling under '(4) Flour' under the heading "27. Food Processing Industries";
4. (a) Oil seed crushing, falling under '(1) Vegetable oils including solvent extracted oils' and (b) Vanaspati falling under '(2) Vanaspati' under the heading "28. Vegetable Oils and Vanaspati";
5. Leather falling under the heading '31. Leather, Leather Goods and Pickers';
6. Matches falling under '(3) Matches' under the heading "36. Timber Products".
7. Distillation or brewing of alcoholic drinks falling under the heading "26—Fermentation Industries". [This item substituted *vide* Notification No. S.O. 657(E)/IDRA/75/11 dated 19.11.1975]

SCHEDULE V

(Other Articles)

1. All qualities of steel manufactured from electric furnaces based on scrap, falling under '(1) Iron and Steel (Metal)' and '(6) Special Steel' under the heading: "1. METALLURGICAL INDUSTRIES: A. Ferrous".
2. Iron and steel pipes and tubes and stainless tubes falling under '(5) Iron and Steel Pipes' under the heading, "1. METALLURGICAL INDUSTRIES: A. Ferrous".
3. Bright bars.
4. Tin containers and metal containers.
5. Drums and barrels.
6. Wires of mild steel, special steel and alloy steel-coated and uncoated.
- *7. Re-rolling of steel, including manufacture of hot rolled bars/rods and sections using billets or re-rollable scrap as raw material and also cold rolled steel strips and box strappings.
The above items 3 to 7 fall under '(7) Other products of iron and steel' under the heading "1. METALLURGICAL INDUSTRIES: A. Ferrous".
8. Non-ferrous semis alloys, flat products and extrusions excluding aluminium semis falling under the heading "1. METALLURGICAL INDUSTRIES: B. Non-ferrous".
9. Plastic processed goods falling under '(1) Plastic moulded goods' under the heading, "12. MISCELLANEOUS MECHANICAL AND ENGINEERING INDUSTRIES".
10. Industrial gases falling under '(14) Miscellaneous Chemicals' under the heading, "19. CHEMICALS (OTHER THAN FERTILISERS)".
11. Steel forgings falling under '(3) Iron and steel castings and forgings' under the heading "1. METALLURGICAL INDUSTRIES".
12. AAC/ACSR Conductors falling under '(6) Electrical Cables and Wires' under the heading "5 ELECTRICAL EQUIPMENT".
13. Formaldehyde falling under '(2) Organic Heavy Chemicals' under the heading "19 CHEMICALS (OTHER THAN FERTILISERS)".

Note: Items of Schedule V, from serial Nos. 1 to 10 added *vide* Notification No. 671(E)/IDRA/73/3 dated 31 October, 1973. Items at serial Nos. 11, 12 and 13 of this schedule added *vide* Notification Nos. 122(E)/IDRA/74/3 dated 26 February, 1974, No. 512(E)/IDRA/74/3 dated 29 August, 1974, and No. 92(E)/IDRA/75/1 dated 12 February, 1975 respectively.

*Amended *vide* notification No. 652(E)/IDRA/75/9 dated 13.11.75.

ANNEXURE I

Additional Items Reserved for Small-scale Sector

Mechanical Engineering Industries

1. Shoe grindery.
2. Washers.
3. Builders hardware.
4. Stranded wire.
5. File mechanism.
6. GI buckets.
7. Pressure cookers.
8. Belt fasteners.
9. Hand and animal drawn carriage fittings.
10. Cutlery.
11. Gate-hooks.
12. Tin cutters.
13. Domestic gas appliances such as cooking ranges, water heaters, hot plates, etc.
14. Zip fasteners (metallic and non-metallic).
15. Oil stoves.
16. Sanitary fixtures (metallic only).
17. Umbrella ribs and fittings.
18. Snap fasteners.
19. Safety pins and other similar products like paper pins, staple pins, hair pins, etc.
20. Steel furniture.
21. Duplicating machines other than special type.
22. Circlips.

Electrical Industries

23. Carbon brushes manufactured from carbon black.
24. Black adhesive insulating tape.

Glass and Ceramic Industries

25. Contact lenses.
26. Reinforced cement concrete pipes upto 100 cm.
27. Graphite crucibles upto 300 numbers and silicon carbide crucibles upto 100 numbers.

Leather-based Industries

28. Belt lacing.

Miscellaneous

29. Sanitary napkins.
30. Woodwool slabs.

ANNEXURE II

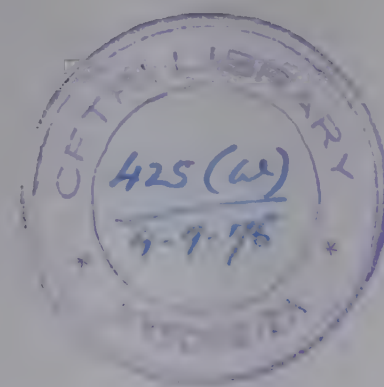
Domestic Electrical Appliances Reserved for Small-Scale Sector

Item

Specification

- | | |
|---|--|
| 1. Cooking ranges | : Upto 4 hot plates/boiler plates with/
without baking oven/hot case, upto 4 K.W. |
| 2. Storage water heaters/geysers | : a) Upto 100 litres cap.
b) Upto 3 K.W. |
| 3. Washing machines with/
without spin driers | : a) Upto 8 lbs. cap. dry clothes.
b) Upto 3 K.W. |
| 4. Hot plates/boiler plates | : a) Upto 3 Nos.
b) Upto 4 K.W. |
| 5. Bread toasters ordy/
auto/semi auto | : Upto cap. 6 slices. |
| 6. Hot cases | : Upto 4 cubic ft. |
| 7. Electric irons
(Ordy-auto-steam) | : Upto 8 lbs. weight. |
| 8. Hot air blowers/
heat convectors | : Upto 2 K.W.
a) Upto fan size 10' '.
b) Upto blower size 8' ' × 2.5' ' dia. |
| 9. Mixers/grinders with/without
accessories such as meat mincer, all purpose
beater, espresso coffee maker, centrifugal
juicer, citrus fruit juice extractor, etc. | : a) Cap. of jar 1 litre max.
b) Upto 500 watts 30 minutes rating. |
| 10. Ice cream makers | : Cap. 1 litre (for use with domestic
refrigerators). |
| 11. Room heaters | : Upto 3 K.W. |
| 12. Egg boilers | : Upto 1/2 dozen eggs. |
| 13. Espresso coffee makers | : Upto cap. 3 pints. |
| 14. Water boilers | : Upto 100 litre cap. |
| 15. Coffee percolators | : Upto 3 pints. |
| 16. Electric kettles
(Sauce pan/ring types) | : Upto 3 pints. |
| 17. Electric stoves | : Upto 3 K.W. |
| 18. Immersion water heaters | : Upto 3 K.W. |
| 19. Hair driers | : All types. |
| 20. Food warmer trays | : Upto 500 watts. |
| 21. Baking ovens, with/without provision
for roasting/grilling | : Upto 2 cubic ft. |
| 22. Electric auto tandoor | : 1 K.W. |

N.B. This list was announced in a Press Note issued on 29 July, 1975.



ANNEXURE III

Paper Conversion Products Reserved for Small-Scale Sector

1. Corrugated paper and board.
2. Paper and board cartons.
3. Paper bags.
4. Paper envelopes.
5. Paper napkins.
6. Paper cups.
7. Paper plates.
8. Drinking straws.
9. Paper tubes and cones.
10. Corrugated fibre board containers.
11. Gum tape.
12. Waxed paper.
13. Blue print papers—all types.
14. Teleprinter rolls.
15. Stencil paper.
16. Tele tape rolls.
17. Slitting of paper into rolls and sheets.
18. Composite containers.
19. Sanitary towels.
20. Paper twine, string and rope.
21. Paper streps.
22. Decorative papers.
23. Exercise books, file covers, registers etc.
24. Transfer labels.
25. Bituminised water-proof paper.
26. Gummed paper stickers, labels, etc.
27. Treated tracing paper.
28. Paper cones.
29. Carbon paper.

N.B. This list was announced in a Press Note issued on 30 January, 1976.

REGISTRATION WITH DGTD AND OTHER TECHNICAL AUTHORITIES

Who Should Register

1. (1) Undertakings which are exempted from licensing by Government's notification of 16 February, 1973, (2) undertakings employing less than 50/100 workers with/without the aid of power, and (3) those engaged in non-scheduled industries, do not require a licence but are expected to get themselves registered for statistical purposes. This registration does not carry with it any commitment on the part of the Government to provide raw materials.

Registering Authorities

2. Small scale units *i.e.*, units having an investment upto Rs. 10 lakhs in plant and machinery (excluding land and buildings) are not required to register themselves with Central Government authorities. They will, however, be required to register themselves with the appropriate State Directors of Industries and with the Development Commissioner, Small Scale Industries. There are small scale units in certain industries (*namely*, coal, handloom textiles, roller flour milling, milk foods and malted foods, oilseeds crushing and vanaspati, leather, matches and distillation and brewing of alcoholic drinks), which are required to obtain an industrial licence under the rules. Of these undertakings, those engaged in leather and match industries will be dealt with by the appropriate State Directors of Industries. The others will be registered and dealt with by the appropriate Central Government technical authorities. Undertakings other than those in the small scale sector are expected to get themselves registered with the Directorate General of Technical Development or other concerned technical authority of the Central Government (*viz.*, the Textile Commissioner, Iron and Steel Controller, Chief Director of Sugar and Vanaspati and the Coal Controller).

Application at the First Stage

3. For the purpose of registration, the applicant unit should submit an application to the concerned Central Government technical authority (in the case of DGTD the applications should be addressed to the Coordina-

tion Directorate) giving details of the items of manufacture, expected annual turn-over, phased manufacturing programme, requirement of imported equipment and raw materials, value of fixed assets involved and certain other particulars about their group affiliations, etc., as in the proforma at Annexure I. There is no fee for registration. Industrial units which have already got registered need not apply for any fresh registration. The information sought in the proforma is largely similar to that required for an application for an industrial licence and is necessary in order to secure adequate statistical materials on the trend of industrial growth. The filling of the proforma should not present any difficulty to medium-scale entrepreneurs as the information required covers only points on which they would have exercised their minds before taking business decisions to establish particular undertakings. In the case of licensed industrial undertakings which expand or diversify their production under the liberalised licensing policy, the concerned industrial undertakings will not fill the form. Instead, they will approach the DGTD etc. for registration by addressing a letter to that office giving particulars of the licences held by them and the extent of diversification/expansion effected by them and such other particulars as may be relevant.

4. The application should be submitted to the DGTD or other concerned technical authority in duplicate. If more than one product is manufactured, a separate copy should be submitted in regard to each of the products. A copy of the application should be endorsed to the concerned State Director of Industries for his information. In case the applicant firm requires clearance for foreign collaboration or capital goods, it should first obtain such clearances prior to applying for registration. On receipt of the application for registration, DGTD etc., will take it on record expeditiously and communicate the fact of registration and the registration number to the party. If on the face of the facts in the application, an industrial licence is required, the party will be told so. Furnishing of incomplete or wrong information is liable to delay the process of registration. Registration with the DGTD etc. will not imply any commitment on the part of Government for release of

foreign exchange either for import of capital goods or for raw materials and components or for providing any other facility to the applicant firm. Nor will registration necessarily imply the acceptance or recognition by Government of any of the facts stated in the application.

Intimation after Commencement of Production

5. After it actually commences production, the firm should send further intimation (in duplicate) to the DGTD or other concerned Central Government technical authority in the proforma at Annexure III to Appendix XII. Additional copies should be sent for each of the additional products. A copy of this intimation should also be sent to the State Director of Industries for his information. After commencement of production, industrial units registered with the DGTD etc., will, in the first week of every month, submit to the DGTD or other concerned Central Government technical authority under intimation to the concerned State Director of Industries, their production returns (in duplicate) giving details of the raw materials/components etc., consumed and other relevant information as in the proforma at Appendix XIII. Additional copies

should be sent for each of the additional products. In cases which involve import of capital equipment, the applicant firms should address their import applications (quoting the registration number allotted to them) to the Chief Controller of Imports & Exports through the DGTD or other concerned sponsoring authority and endorse a copy of the application to the Administrative Ministry concerned for their information. Similarly applications for import of raw materials/components should also be addressed by the applicant firms to the Chief Controller of Imports and Exports through the DGTD or other concerned sponsoring authority. Where foreign collaboration is involved, the firm should submit details of the terms of collaboration to the Foreign Collaboration Section of the Department of Industrial Development, before it applies for imported capital equipment and/or raw materials and get the collaboration approved.

6. Government's policy for allocation for raw materials to registered units will be governed, *inter alia*, by the over-all raw materials situation and the needs and requirements of particular industries. The capacities to be reckoned with, for allocation of raw materials would, where necessary, be decided upon after physical inspection by technical officers.

ANNEXURE I

FORM OF APPLICATION FOR REGISTRATION WITH DGTD ETC.

1. Name and address of the applicant.
2. Name and address of the industrial undertaking.
3. (a) Whether it is proposed to be undertaken by proprietors, partners, private limited or public limited company.
- (b) Names of proprietors, partners, or Board of Directors and their addresses.
- (c) How is it proposed to finance the undertaking?
- (d) Capital Structure: details may be furnished regarding (i) the capital that will be raised by the applicant and his supporters (ii) the assistance, if any, proposed to be asked for from the various financial institutions such as IFC etc. (give details regarding the loans, underwriting, participation in equity capital, etc.) and (iii) from other sources.
- (e) Is any foreign collaboration (whether in the form of royalty or consultancy agreement) or investment envisaged? If so, the extent and nature of such collaboration. Is it proposed to find foreign exchange for import of capital equipment in any other way?
4. Whether there is any foreign equity shareholding in the applicant firm/undertaking and, if so, the extent of equity shareholding held by companies registered abroad or by non-Indian nationals or non-resident Indians?
- 4.A(i) Whether registered under the MRTP Act, 1969 and if so, please indicate:
 - (a) Sub-section of section 20 with reference to which registered (i.e. Sec. 20(a) or (b).
 - (b) Registration No. and date.
 - (c) Whether an application has been made to the Deptt. of Company Affairs for permission under section 21 or 22 of the MRTP Act, 1969. If so, please give brief particulars. If not please state reasons for not submitting the applications.
- (ii) If not registered under MRTP Act, please give the number and date of notice, if any, issued to you by the Deptt. of Company Affairs. Also indicate whether you have made any representations in this regard to that Deptt. and if so, when?
5. Whether the applicant firm/undertaking has already any foreign collaboration arrangement and, if so, the broad terms thereof including the date when the present agreement will expire? The reference number of Government's letter of approval in respect of the foreign collaboration agreement should be quoted.
6. Whether the applicant firm/undertaking is a 'dominant undertaking' in terms of Section (d) of the Monopolies and Restrictive Trade Practices Act? Items of production in respect of which the undertaking falls in the above category should be indicated.
7. Proposed location of the factory.

Tehsil..... District..... State.....

8. Lines of manufacture proposed:

<i>Name of Product and By-product</i>	<i>*Proposed (Annual) Installed Capacity</i>

*Basis of estimating installed capacity should be clearly stated viz., whether the operation will be continuous or by shifts and the number of shift days assessed for estimating the annual capacity.

9. Manufacturing programme:

(a) Existing activities, if any:

<i>Sl. No.</i>	<i>Items of Production</i>	<i>Existing Capacity</i>		<i>Current Annual Production</i>	
		<i>Quantity/Tonnage</i>	<i>Value</i>	<i>Quantity/Tonnage</i>	<i>Value</i>
1.					
2.					
3.					
etc.					

(b) Final manufacturing programme for items in respect of which this application is made:

<i>Sl. No.</i>	<i>Items of Manufacture</i>	<i>Annual Capacity</i>		<i>Estimated Annual Production</i>		<i>CIF Value of Unit Product</i>
		<i>Quantity/Tonnage</i>	<i>Value</i>	<i>Quantity/Tonnage</i>	<i>Value</i>	
1.						
2.						
3.						
etc.						

(c) Forecast of time required for implementation of the project.

10. Phased manufacturing programme for 9(b) above, if any:

Year	Item of Production	Annual Turnover		Percentage by Value of Imported Content (i.e., Total of all Imported Raw Materials and Components)
		Quantity/ Tonnage	Value	
1st Year				
(i)				
(ii)				
(iii)				
(iv)				
2nd Year				
(i)				
(ii)				
(iii)				
(iv)				
3rd Year				
etc.				
	(Attach a sheet, if necessary)			

11. Estimated requirements of main raw materials:

<i>Name of Raw Material</i>	<i>Whether Indigenous or Imported: if the latter, the Country of Origin</i>	<i>Quantity Required per Year</i>	<i>Estimated Value</i>

12. Annual requirements of all imported raw materials in value (CIF) and the percentage thereof to the annual ex-factory value of production of the item in the manufacture of which the raw-materials are to be used.

(i) Figures to be furnished for each product separately.

Item of manufacture (Product)

(1)	(2)	(3)
<i>Value of Imported Raw Materials Required per Annum</i>	<i>Estimated Annual Ex-factory Value of Production of the Item in the Manufacture of which the Raw Materials are to be used</i>	<i>Percentage of Col. 1</i>
		<i>Col. 2</i>

(ii) For calculating the percentage, value of imported steel and aluminium will be excluded.

(iii) If there will be variations because of the phasing of the manufacturing programme they should be indicated.

13. Value of anticipated requirements of imported components (CIF) for the first three years from the date of commencement of production.

14. Requirements of capital equipment—

Total value of equipment required:

(i) Imported:

Please give name of the countries in the order of preference.

(ii) Indigenous.

15. Please indicate the estimated requirements of fixed assets *i.e.*, investment in land, building and machinery

Land

Building

Machinery

NOTE:—Where the land and/or building is rented, the capitalised value of the same may be given.

16. Staff and labour—proposed to be employed on implementation of the project.

(a) Managerial.

(b) Supervisory—

Technical.

Non-technical.

(c) Clerical.

(d) Labour—

Skilled.

Semi-skilled.

Unskilled.

(e) Other categories, if any.

17. Whether the applicant has submitted any other application for registration on which decision is still awaited; if so, full details regarding the date of application, item of manufacture, location, etc. may be furnished.
18. Whether the undertaking has already been granted any registration, if so, particulars of such registration.
19. In the case of imported raw materials/components, whether the import is recurring or non-recurring and value.
20. Whether any of the required components are proposed to be sub-contracted to the small-scale and ancillary units, and, if so, the details thereof.
21. Capacity for different items on the basis of maximum utilisation of plant and machinery to be installed *i.e.*, on maximum shift operation basis.
22. (*In the case of Cooperative Undertakings only*)
 1. Details as to how its membership is constituted *viz.*, (i) of workers, (ii) producers of raw materials, (iii) consumers; and (iv) others.
 2. Names of proprietors, partners or Board of Directors and their addresses with full details of occupation of each director.
 3. Details of capital structure *viz.*, (a) capital to be raised by members, (b) share participation by the State Government, (c) borrowings from IFC etc., and (d) other sources.
 4. In regard to the staff and labour proposed to be employed on implementation of the project, details regarding managerial, supervisory, clerical, skilled and unskilled labour may be given for (i) members and (ii) others separately.

Place

Date

Signature of the Applicant

FORM IL

[Prescribed under Rule 7(2) of the Registration and Licensing of Industrial Undertakings Rules 1952]

APPLICATION FOR LICENCE OR PERMISSION

(To be submitted with 10 spare copies)

Note: This form is to be used for application for a licence or permission for the establishment of a new industrial undertaking [under section 11] or to effect substantial expansion [under section 13(1) (d)] or for the manufacture of new articles [under section 11A] under the provisions of the Industries (Development and Regulation) Act 1951.

1. Name and address of the applicant.
2. (i) Name and address of the industrial undertaking.⁽¹⁾
 (ii) Names of proprietors, partners or Board of Directors and their addresses.
3. Whether the undertaking is registered under the MRTP Act 1969. If so, please indicate:
 - (i) Sub-section of Section 20 with reference to which registered [i.e., Section 20(a) or (b)].
 - (ii) Registration number and date.
 - (iii) Whether an application has been made to the Department of Company Affairs for permission under Section 21 or 22 of the MRTP Act 1969. If so, please give brief particulars. If not, please state reasons for not submitting the application.
 - (iv) If not registered under MRTP Act, please give the number and date of show-cause notice, if any, issued to you by the Department of Company Affairs. Also indicate whether you have made any representations in this regard to that Department and, if so, when.
 - (v) Whether the applicant firm/undertaking is a 'dominant undertaking' in terms of the MRTP Act. If so, please indicate:
 - (a) Items of production in respect of which the undertaking falls in the category of 'dominant undertaking'.
 - (b) Annual production figures in respect of such items for the preceding four calendar years.
4. Whether there is any foreign equity shareholding in the applicant firm/undertaking and, if so, the extent and percentage of equity shareholding held by companies registered abroad, or by non-Indian nationals or non-resident Indians. These details may be furnished separately for direct and indirect foreign holdings.

- (b) Whether the Tehsil/District is a notified backward area eligible for investment subsidy from the Government.

8. Whether the proposed investment is for a new undertaking⁽²⁾ (NU), or for the manufacture of new articles (NA) or for substantial expansion (SE)⁽³⁾ in the existing undertaking.

9. Items of manufacture and capacities for which licence is sought:

<i>Sl. No.,</i>	<i>Items of Manufacture</i>	<i>Scheduled Industry to which it relates⁽⁴⁾</i>	<i>Proposed Annual Installed Capacity⁽⁵⁾</i>
1	2	3	4

10. (a) Estimated requirements of raw materials and components.

<i>Sl. No.</i>	<i>Name of Raw Material/ Component</i>	<i>Indigenous or Imported</i>	<i>Quantity</i>	<i>Value⁽⁶⁾</i>
I	2	3	4	5

(b) Phased manufacturing programme for import substitution. Furnish details for 5 years.

<i>Year</i>	<i>Item of Manufacture</i>	<i>Annual Production</i>		<i>Percentage by C.I.F. Value of Imported Content (i.e., Total of all Imported Raw Materials and Components)</i>
		<i>Quantity</i>	<i>Ex-factory Value</i>	
1	2	3	4	5
1st Year				
(i)				
(ii)				
(iii)				
(iv)				
2nd Year				
(i)				
(ii)				
(iii)				
(iv)				
3rd Year				
etc.				

11. If the estimated investment in fixed assets⁽⁷⁾ is less than Rs. 1 crore, furnish the following particulars:

(a) Annual requirements of imported raw materials in value (CIF) and the percentage thereof to the annual ex-factory value of production of the item in the manufacture of which the raw materials are to be used.

<i>Sl. No.</i>	<i>Product</i>	<i>Value (CIF) of Imported Raw Materials required per Annum</i>	<i>Estimated Ex-factory value of Production</i>	<i>Percentage⁽⁸⁾ of col. 3 and col. 4</i>
1	2	3	4	5

(b) Value of anticipated requirements of imported components (CIF) in the fourth year from the date of commencement of production and the percentage of such imports to the ex-factory value of annual production.

12. If it is proposed to manufacture new articles or undertake substantial expansion in the existing undertaking, furnish the following details:

(a)

<i>Sl. No.</i>	<i>Item of Manufacture</i>	<i>Present Licensed Capacity⁽⁹⁾</i>	<i>Capacity of Expansion Envisaged</i>	<i>Annual Capacity after Expansion (col. 3 plus col. 4)</i>
1	2	3	4	5

(b) Ex-factory value of:

- (i) annual production of items presently manufactured.
- (ii) annual production of items proposed for manufacture.

13. Indicate requirements of fixed assets in the following form.⁽⁷⁾

Existing

Proposed

- (a) Land
- (b) Building
- (c) Machinery
 - (i) indigenous
 - (ii) imported

14. Is any foreign collaboration (whether in the form of royalty or consultancy agreement or investment) envisaged?

15. (a) Is export envisaged of the items proposed to be manufactured? If so, furnish details of quantity to be exported and f.o.b. value thereof.

(b) Are you prepared to undertake an export obligation? If so, indicate the percentage of production in terms of value and/or quantity that will be covered by the obligation.

16. Effect on balance of payments for the first 5 years:

(a) Foreign exchange earnings based on f.o.b. value of exports covered by export obligation and/or foreign exchange savings through import substitution (c.i.f. value).

(b) Foreign exchange outgo on

- (i) import of machinery and equipment
- (ii) import of raw materials and components
- (iii) repatriation of dividends and profits to foreign collaborators
- (iv) other payments to collaborators by way of lumpsum, royalty, technical know-how fee, etc.

(c) Net foreign exchange outgo or inflow [(a) minus (b)]

17. Water supply:

(i) Is adequate water (furnish quantity) available for the requirements of the factory and township and staff quarters?

(ii) Will it be drawn from public sources?

18. Power Supply:

(a) Requirements for the project proposed to be met from:

- (i) own generating station
- (ii) public supply

(b) In case of own station, give brief particulars of plant in operation.

19. Transport: If possible, indicate requirements of rail transport for movement of raw materials and finished products in the proforma attached.

20. Fuel: Give details of fuel requirements. If possible, indicate requirements of coal/coke in the proforma attached.

21. Staff and labour proposed to be employed in the implementation of the project:

- (a) Managerial
- (b) Supervisory—
 Technical
 Non-technical
- (c) Clerical
- (d) Labour—
 Skilled
 Semi-skilled
 Un-skilled
- (e) Other categories, if any

Total
.....

22. Whether any of the required components are proposed to be sub-contracted to small-scale and ancillary units and, if so, the details thereof?
23. Give a brief description of the processes involved in the manufacture and factors favourable for their adoption.
24. Indicate the steps proposed to ensure safe disposal of the discharge of effluents and gases into air, water and soil.
25. Estimated time required for commercial production from the date of issue of the letter of intent or industrial licence.
26. Whether the applicant has been issued any industrial licence or letter of intent so far and if so, full particulars of each of letter of intent/industrial licence issued to him with reference number, date of issue, item of manufacture, and progress of implementation of each such letter of intent/industrial licence.
- 26-À. Mention details of the industrial undertakings under the control of the applicant or with the management of which the applicant has been associated which had remained closed for a consecutive period of not less than 90 days during three years preceding the date of application. Reasons for closure, steps taken by the management for the revival and the present state of that industrial undertaking may also be indicated.
27. Please state the factors which you consider favourable in respect of your application *e.g.*, suitability and experience of the applicant or undertaking for implementing the scheme, preliminary studies on techno-economic aspects, market forecast etc., made before making the application, direct and indirect employment and in the case of substantial expansion, the considerations which would favour it.

Place *Signature of Applicant*
Date

(For Office use)

Date of receipt of application..... *Signature of the Receiving Officer*

EXPLANATORY NOTES

(1). "Industrial undertaking" means any undertaking pertaining to a scheduled industry carried on in one or more factories by any person or authority including Government.

(2). "new article", in relation to an industrial undertaking which is registered or in respect of which a licence or permission has been issued means—

- (a) any article which falls under an item in the First Schedule to the Industries (Development and Regulation) Act 1951 other than the item under which articles ordinarily manufactured or produced in the industrial undertaking at the date of registration or issue of the licence or permission, as the case may be, fall;
- (b) any article which bears a mark as defined in the Trade Marks Act 1940 or which is subject of a patent if at the date of registration or issue of the licence or permission, as the case may be, the industrial undertaking was not manufacturing or producing such article bearing that mark or which is the subject of that patent.

(3). In accordance with Government's announcement made in October 1966 industrial undertakings can increase production of articles for which they were licensed or registered up to 25 per cent of the capacity so licensed or registered without obtaining a substantial expansion-licence, provided that certain conditions were fulfilled, viz., (i) no additional plant and machinery is installed, except minor balancing equipment procured indigenously; (ii) no additional expenditure of foreign exchange is involved; and (iii) the extra production does not occasion any additional demand for scarce raw materials. However, the industrial undertakings which had got their licences endorsed for increased capacity in terms of relaxation for fuller utilisation of capacity allowed in the case of 65 specified industries in 1972 are not entitled to this concession of 25 per cent.

(4). Please refer to the First Schedule to the Industries (Development and Regulation) Act 1951.

(5). The annual capacity is to be estimated on the basis of the maximum utilisation of plant and machinery.

(6). c.i.f. value should be given for imported raw materials and components.

(7). Original value of land, buildings, plant and machinery should be furnished. Where the land and/or building is rented, the capitalised value of the same may be given.

(8). For calculating the percentage, value of imported steel and aluminium may be excluded. Any variations as a result of the phasing of the manufacturing programme may also be indicated.

(9). Basis of licensed capacity should be clearly stated viz., whether continuous or by shifts.

[Proforma referred to in item 19 in the form IL].

STATEMENT SHOWING THE RAIL TRANSPORT REQUIREMENTS OF M/S.....
FOR THE MOVEMENT OF RAW MATERIALS AND FINISHED GOODS FOR THE MANUFACTURE OF.....

Exact location of the undertaking and railway station which will serve it.	Commodity required to be manufactured.	Quantities of finished products in tonnes required to be moved by rail year by year during the next few years.	The direction- wise breakdown of traffic as sta- ted in col. 3 on a daily basis in- dicating impor- tant stations/ areas to which the despatches are to take place.	Name of each raw material indicating stations and areas, etc.	Source of supply of each raw material	Quantity of each raw material. Annual movement (tonnes)	Daily movement (tonnes)	Brief indica- tions of special facilities if any required at the despat- ching and re- ceiving stations including spl. types of wagons.	Any other information relevant to railway transport requirements.	
1	2	3	4	5	6	7	8	9	10	11

STATEMENT SHOWING THE REQUIREMENTS OF COAL/COKE OF M/S.....

Exact location of the undertaking and the railway station which will serve it.	Grade, class etc., of coal/coke required.		Quantity of coal/coke required per month.		Source of supply indicating station and areas.	Date of commencing of the works.	Type of burning equipment used.
	Coal	Coke	Coal	Coke			
1	2	3	4	5	6	7	8

FORM EE

[Prescribed under Rule 7(2) of the Registration and Licensing of Industrial Undertakings Rules 1952]
(as revised)

APPLICATION FOR LICENCE OR PERMISSION

This form is to be used in the following cases:

- (1) Where an industrial undertaking which was required to be registered under section 10 but has not been registered within the time fixed for the purpose, proposes to carry on the business of that undertaking after the expiry of such period [*vide* clause (a) of sub-section (1) of section 13 of the Act].
- (2) Where an industrial undertaking the registration in respect of which has been revoked under section 10A proposes to carry on the business of the undertaking after the revocation [*vide* clause (b) of sub-section (1) of section 13 of the Act].
- (3) Where an industrial undertaking to which the provisions of the Act did not originally apply but became applicable after the commencement of the Act for any reason, proposes to carry on the business of the undertaking after the expiry of three months from the date on which the provisions of the Act became so applicable [*vide* clause (c) of sub-section (1) of section 13 of the Act].
- (4) Where an industrial undertaking to which the provisions of section 10, section 11, section 11A or clause (d) of sub-section (1) of section 13 of the Act did not originally apply on account of an exemption order issued under section 29-B of the Act but became applicable thereafter as a result of the cancellation of the exemption order, proposes to carry on the business of the undertaking after the expiry of such period as may be specified in the notification cancelling the exemption.

Note—Particulars given below should show the position as on the date of application unless otherwise directed in the questionnaire.

1. Name and address of the applicant.
2. Name of the industrial undertaking.

Address:

- (a) Head office.
- (b) Factory or factories.

3. Ownership.
4. Names of proprietors, partners or Board of Directors and their addresses.

5. Name and address of the owner of the undertaking in terms of section 3(f) of the Act.
6. The scheduled industries or industry to which the articles manufactured or produced relate.
7. Capital structure—
 - (a) In the case of companies registered under Indian Companies Act 1913.

	<i>Number</i>	<i>Value</i>	<i>Total</i>
(i) Authorised capital—			
Preference shares	..		
Ordinary shares	..		
Deferred shares	..		
Any other class of shares	..		
(ii) Issued capital—			
Preference shares	..		
Ordinary shares	..		
Deferred shares	..		
Any other class of shares	..		
(iii) Paid-up capital—			
Preference shares	..		
Ordinary shares	..		
Deferred shares	..		
Any other class of shares	..		
(iv) Debentures			
(v) Other borrowings			

- (b) In the case of others
 - (i) Capital invested by the owner excluding borrowings.
 - (ii) Shares of each of the partners or of members of an association.
 - (iii) Borrowings.

8. Name and address of Managing Agents, if any, and the principal clauses of the managing agency agreement.
9. A copy each of the last three years' balance sheets and profit and loss accounts. (to be attached to each copy of the application).
10. (a) Foreign capital invested. Terms of agreement, if any, with foreign collaborator including terms in regard to royalty, etc.
- (b) Details of foreign technicians employed.

11. *Approximate land under control of the undertaking:

(1) for factory and administration purposes—

(a) in use

(b) available for expansion

(2) for township and other facilities—

(a) in use

(b) available for expansion

*(This is not applicable to mining concerns).

12. Water supply—

(a) Is it ample for the requirements of—

(1) factory and

(2) Township or staff quarters?
(State approximate quantity).

(b) Is it drawn from public supply?

(c) Effluent problems, if any.

13. Power supply—

(a) Total requirements drawn from—

(1) own generating station

(2) public supply.

(b) In case of own station, give brief particulars of plant in operation.

14. (a) Nature of plant and equipment section by section. Main plant and machinery items grouped under different sections following the standard practice in vogue in each industry.

(b) Replacement requirements over next five years.

15. Transport facilities for incoming raw materials and outgoing finished products.

16. Manufacturing activities—

(a) Whether continuous or shift operation.

(b) Number of shifts generally worked.

(c) Number of working days in a month/year.

NOTE: Allow for compulsory holidays and for possible interruptions arising from breakdowns, overhauling and maintenance repairs separately on the basis of your past experience.

(d) *Monthly installed capacity—

*(State the number of working days in a month and the number of shifts in a day).

<i>Name of the Manufactured Product</i>	<i>Capacity</i>

17. Past production including by-product during the last three calendar years.

<i>Name of Principal Product or By-product</i>	<i>Quantity</i>	<i>Value</i>

NOTE:—In the case of seasonal industries, e.g., sugar, give figures relating to the season.

18. Staff and labour employed:

	<i>Head Office</i>	<i>Factory</i>	<i>Total</i>
(a) Managerial—			
(b) Supervisory—			
technical :			
Non-technical :			
(c) Clerical—			
(d) Labour—			
Skilled :			
Semi-skilled :			
Unskilled :			
(e) Other categories, if any.			

19. (a) Whether any application was made for the registration of this undertaking under the Industries (Development and Regulation) Act 1951? Give particulars of the number and the date of the application and of the reply thereto.
- (b) If no application was made for the registration of this undertaking, give the reasons therefor.
20. Whether the registration of this undertaking has previously been revoked under section 10A of the Act. If so, give particulars of the letter of revocation.
21. Give the following particulars regarding your industrial undertaking as on 8 May 1952 or as on 1 October 1953 or 1 March 1957 according as (a) or (b) or clause (bb) of section 3 of the Act applies to your case.
- (i) The total number of staff and labour employed in the factory and head office.
- (ii) Articles manufactured.
22. If sub-section (2) of section 29-B of the Act applies to your undertaking, give the following particulars:
- (1) Number and date of the exemption order issued under section 29-B of the Act in pursuance of which you did not apply for registration under section 10 or for licence under section 11, section 11A or sub-section (1) of section 13 of the Act in respect of your undertaking.
- (2) (a) Date on which your industrial undertaking came into production.
- (b) Articles manufactured on the above date.
- (c) Monthly capacity of each of the articles manufactured.
- (d) Number of staff and labour employed in the factory.
- (3) (a) Whether subsequent to the establishment of the industrial undertaking, the capacity of any of the articles manufactured therein has been expanded or any 'new articles' have been manufactured.

(b) If the answer to the above is in the affirmative, give particulars of:

- (i) the expansion of the capacity effected;
- (ii) the capacity of the 'new articles' if any manufactured; and
- (iii) Number of staff and labour employed in respect of the above.

23. Indicate the estimated requirements of fixed assets, *i.e.*, investment in land, building and machinery.

Land	..
Building	..
Machinery	..

NOTE:—Where the land and/or building is rented, the capitalised value of the same may be given.

Place.....

Date.....

Signature of the Applicant

(To be filled in by the Government of India)

Date of receipt of the application.

Signature of the Receiving Officer

N.B.: Additional information is also to be supplied in the form given in Annexure to this Appendix.

Annexure

(Form of additional information to be furnished with applications for licences or permission in form EE.)

- | | Fixed Assets | |
|---|--------------|----------|
| | Land | Building |
| 1. (a) At the time of last industrial licence held by the applicant. | | |
| (b) Added under exemption allowed by Govt. (total and product-wise) | | |
| (c) Contemplated for additional activities. | | |
| 2. (a) Please give following further particulars about location of industrial undertaking. | | |
| (i) Tehsil/Block | | |
| (ii) District. | | |
| (b) Whether the District is one of the backward districts mentioned in the list attached. | | |
| 3. Annual requirements of all imported raw materials in value (CIF) and the percentage thereof to the annual ex-factory value of production of the item in the manufacture of which the raw materials are to be used. | | |
| (i) Figures to be furnished for each product separately. | | |

Item of manufacture (product)

(1) Value of imported raw materials required per annum	(2) Estimated Annual ex-factory value of production of the item in the manufacture of which the raw materials are to be used.	Percentage of Col. 1 and Col. 2

- (ii) For calculating the percentage, value of imported steel and aluminium will be excluded.
- (iii) If there will be variations because of the phasing of the manufacturing programme they should be indicated. [This additional information may be furnished against item 2 of Form D(I), Item 14 of D(II), item 9 of Form E(I) and item 18 of Form E(II)].
4. Value of anticipated requirements of imported components (CIF) for the first four years from the date of commencement of production.

5. (a) Whether registered under the MRTP Act 1969 and if so, please indicate:

(i) Sub-section of section 20 with reference to which registered i.e. sec. 20 (a) or (b).

(ii) Registration No. and date.

(iii) Whether an application has been made to the Deptt. of Company Affairs for permission under section 21 or 22 of the MRTP Act 1969. If so, please give brief particulars. If not, please state reasons for not submitting the application.

(b) If not registered under MRTP Act, please give the number and date of show-cause notice, if any, issued to you by the Deptt. of Company Affairs. Also indicate whether you have made any representations in this regard to that Deptt. and, if so, when?

(c) Whether the applicant firm/undertaking is a 'dominant undertaking' in terms of the MRTP Act, if so, please indicate—

(i) Items of production in respect of which the undertaking falls in the category of 'dominant undertaking'.

(ii) Product classification in which dominant.

6. Whether there is any foreign equity shareholding in the applicant firm/undertaking, and, if so, the extent of equity shareholding held by companies registered abroad, or by non-Indian nationals or non-resident Indians?

7. Whether the applicant firm/undertaking has already any foreign collaboration arrangement and, if so, the broad terms thereof including the date when the present agreement will expire? The reference number of Government's letter of approval in respect of the foreign collaboration agreement should be quoted.

8. *Existing Capacity:*

(a) Name of articles and capacity as per industrial licences/registration certificates held by the applicant.

(b) Name of articles and capacity added under orders of exemption from industrial licensing.

(c) Total existing capacity for different items.

9. *Other Applications:*

Whether the applicant has submitted any other application for new undertaking or substantial

expansion or any other type of licence on which decision is still awaited; if so, full details regarding the date of application, item of manufacture, type of licence, location etc. may be furnished.

10. *Other Licences, and/or Letters of Intent:*

- (a) Whether the undertaking has already been issued any industrial licence or letter of intent, If so, full details of the number and date of issue of industrial licence/letter of intent, item of manufacture, location etc. may be furnished.

NOTE: If any of the licences have been revoked or surrendered or any letter of intent has been cancelled, details of the number and date of revocation order/cancellation order of letter of intent may also be furnished.

- (b) If any of the earlier applications had been rejected, full details thereof and the no. and date of rejection letter may also be indicated.

11. In respect of the industrial licences granted earlier, referred to in item (10) above, the present position regarding the implementation of each licence (whether machinery installed and production commenced or the approximate date on which production is likely to be commenced) may be indicated. The progress made in respect of the scheme for which letter of intent has been issued may also be indicated.

12. Steps proposed to be taken by the applicant for import substitution in cases where raw materials/components are required for a period of more than three years.

13. *Capital Structure.*

Details may be furnished regarding

- (i) the capital that will be raised by the applicant and his supporters.
- (ii) the assistance, if any, proposed to be asked for from the various financial institutions such as IFC etc. (give details regarding the loans, underwriting, participation in equity capital, etc.) and
- (iii) from other sources, [This additional information may be furnished against item 4(e) of Form D(I), item 9 of Form D(II), Item 4(d) of Form E(I) and item 8 of Form E(II).]

14. Give details, quantity, value etc. of 'New Articles' already manufactured in terms of the general orders permitting diversification.

15. In the case of imported raw materials/components, whether the import is recurring or non-recurring and value.
16. (a) Whether any of the required components are proposed to be sub-contracted to the small scale and ancillary units and, if so, the details thereof.
- (b) Whether the applicant firm is agreeable to give an undertaking for the sub-contracting of the above components only to a small scale ancillary unit?
17. Details of arrangements, if any, for meeting the foreign exchange requirements involved in the scheme.
18. Effect on foreign exchange for the first five years:
- (a) Expenditure
- (i) Machinery and Equipment
 - (ii) Raw materials
 - (iii) Components
 - (iv) Payments to foreign collaborators.
- Total: _____
- (b) Savings
- (c) Earnings.
19. If the item proposed to be manufactured is to be exported, give details of quantity to be exported and value thereof.
20. Capacity applied for different items on the basis of maximum utilisation of the plant and machinery to be installed i.e., on maximum shift operation basis.
21. Please indicate the steps proposed to be taken by you to ensure that the discharge of effluent gases into the air, water and soil does not exceed the prescribed safety limits.
22. I.T.V.C. number
23. Whether the items to be manufactured would be covered under I.S.I. Certification Marks Scheme.
24. *(In the case of Cooperative Undertakings only)*
- (1) Details as to how its membership is constituted viz.,
- (i) of workers.
 - (ii) Producers of raw materials,
 - (iii) consumers; and
 - (iv) others.

- (2) Names of proprietors, partners or Board of Directors and their addresses with full details of occupation of each director.
 - (3) Details of capital structure viz.,
 - (a) capital to be raised by members
 - (b) share participation by the State Government
 - (c) borrowings from IFC etc. and
 - (d) other sources.
 - (4) In regard to the staff and labour proposed to be employed on implementation of the project, details regarding managerial, supervisory, clerical, skilled and unskilled labour may be given for:
 - (i) members and
 - (ii) others separately.
25. Please state factors if any, which you may consider favourable in respect of your application e.g. suitability experience of the applicant for undertaking the scheme, preliminary studies made before making the application, whether manufacture of the proposed articles undertaken on getting specific orders, from other units/Govt. purchasing Departments, foreign companies, etc.

FORM E

[Prescribed under rule 7(2) of the Registration and Licensing of Industrial Undertakings Rules 1952]

APPLICATION FOR LICENCE OR PERMISSION

(To be submitted with 10 spare copies)

This form is to be used by registered industrial undertakings or undertakings in respect of which, a licence or permission has been issued which propose to change the location of the whole or any part of the undertaking [*vide* clause (e) of sub-section (1) of section 13 of the Act].

1. Name and address of the applicant.
2. Name and address of the industrial undertaking.
 - (1) Head office.
 - (2) Factory.
3. Number and date of registration or of licence or permission under this Act.
4. Scheduled industry or industries to which the articles already produced or manufactured relate.
5.
 - (1) Present location: Tehsil.....District.....State.....
 - (2) New location proposed: Tehsil.....District.....State.....
 - (3) Reasons for changing the location.
 - (4) Whether the change in location will affect the quality or quantity of the articles produced at present. If so, give full particulars of all changes anticipated.
6. Capital, if any required for the purpose. How will it be secured? Whether by issue of fresh capital or in the form of loan from other sources. Full details to be given including information whether fresh issues or loans have been applied for and present stage of such applications.
7. Requirements of capital equipment, if any:
 - (i) Imported—
 - (a) from sterling areas,
 - (b) from dollar and hard currency areas.
 - (ii) Indigenous.

8. Indicate your requirements, if any, of additional rail transport for movement of raw materials and finished products.
9. Land required, if any, whether it has been acquired or is available.
10. Power required and whether arrangements have been made therefor.
11. Water required and whether arrangements have been made therefor.
12. Staff and labour.

Existing

After change of location has been effected

- (a) Managerial
- (b) Supervisory—
Technical
Non-technical
- (c) Clerical
- (d) Labour—
Skilled
Semi-skilled
Unskilled
- (e) Other categories, if any.

Place.....

Date.....

Signature of the Applicant

(To be filled in by the Government of India)

Date of receipt of the application.

Signature of the Receiving Officer

PRESS NOTE

STREAMLINING OF INDUSTRIAL
APPROVAL PROCEDURES*New Delhi, 31 October 1973*

In announcing their decisions on Industrial Policy in the Press Note dated 2 February 1973, Government had expressed their intention to streamline licensing and connected procedures, wherever necessary, so as to expedite the investment process in all its stages. Government have now completed a comprehensive examination of the procedures relating to pre-investment approvals such as letter of intent, industrial licence, foreign collaboration approval, capital goods clearance and approvals under the MRTP Act 1969. It is both necessary and feasible, within the frame-work of Industrial Policy, to reduce the time lags currently involved in issuing these approvals. With this objective in view, a considerably streamlined system for the issue of Industrial Approvals will be introduced with effect from 1 November 1973 in respect of applications made on or after that date.

The essential objective of the new system will be to issue various clearances within defined time targets. Letters of intent, foreign collaboration approvals and capital goods clearances are proposed to be issued within 90 days of the receipt of applications in each case. In MRTP cases, it is proposed to give a clearance within 150 days having regard to the provisions of the MRTP Act 1969. It is also the desire of Government that, wherever possible, entrepreneurs should be encouraged to come forward with composite applications for industrial licence and, as may be required, for foreign collaboration approval and capital goods clearance as well. In such "composite cases", the time target will be 120 days for a composite clearance which will cover the licence, foreign collaboration and capital goods applications. Where, in addition, an MRTP clearance is also involved, the time target will be 150 days.

The implementation of the new system of Industrial Approvals is being placed under the overall supervision and guidance of an Inter-Ministerial Committee of Secretaries, viz., the Project Approval Board (PAB). Existing approval committees such as the Licensing Committee, Foreign Investment Board and the Capital Goods Committee will function as Committees of the PAB. The PAB will directly deal with composite applications. In order to facilitate the co-ordinated and timely disposal of licensing and MRTP clearances, a joint Licensing-cum-MRTP Advisory Committee has been formed.

The Project Approval Board and the other approval committees will be serviced by a Secretariat for Industrial Approvals (SIA) which has been formed as a separate division in the Ministry of Industrial Development. The SIA will be responsible for receipt of applications, processing them through the concerned approval committees and for issuing the final orders of Government in each case to the applicant within the prescribed time limit. It will also monitor the implementation of approvals by entrepreneurs and assist them in procedural matters.

All applications for industrial licence and foreign collaboration may be submitted with effect from 1 November 1973 to the Secretariat for Industrial Approvals (Central Receipts and Despatch Section), Udyog Bhavan, New Delhi-110011. Capital goods applications, where the estimated value of the equipment is Rs. 10 lakhs (non-rupee area) and Rs. 20 lakhs (rupee area) or above may be submitted to the Secretariat for Industrial Approvals (C.G. Unit), Udyog Bhavan, New Delhi-110011. Capital Goods applications below these limits may continue to be submitted to the Chief Controller of Imports and Exports, Udyog Bhavan, New Delhi-110011. Foreign collaboration agreements which have to be taken on record by Government after their conclusion may be sent to the Administrative Ministry concerned.

Application forms currently in force for the various industrial approvals may continue to be used for the present. It is proposed to simplify and streamline them separately. It will be necessary for applicants who need a clearance under the MRTP Act 1969 to submit industrial licence and MRTP applications simultaneously in future. Unless this is done it will not be possible to coordinate the two clearances within the prescribed time limits under the new arrangements. In such cases, a copy of the MRTP application should be sent to the Secretariat for Industrial Approvals (Central Receipts and Despatch Section), Udyog Bhavan, New Delhi-110011, along with the industrial licence application. Simultaneously, the prescribed number of copies of the MRTP application should be sent as at present to the Department of Company Affairs. In cases, where an applicant needs capital-goods clearance and/or foreign collaboration approval in addition to an industrial licence, he may submit simultaneous applications for all the approvals required. It will be desirable for entrepreneurs to submit such "composite applications" since it will enable a composite or simultaneous clearance to be given with a significant saving in the time lag. Entrepreneurs are also advised to submit sufficient number of additional copies of applications where the investment proposal involves the manufacture of items which fall under different sub-groups listed in the First Schedule to the Industries (Development and Regulation) Act 1951 to facilitate speedy processing. Deficiencies in filling up applications will be comprehensively brought to the attention of applicants who will be required to resubmit them with full particulars. The help of the Entrepreneurial Assistance Unit of the Secretariat for Industrial Approvals will also be available to applicants for filling in the necessary forms. It is emphasised that the efficient working of the new system will depend in large measure on entrepreneurs furnishing complete particulars on well conceived investment proposals which conform to Government's industrial policies and Plan priorities.

At present the initial validity of letters of intent is normally six months, within which applications for other clearances as may be required such as foreign collaboration and capital goods are required to be submitted. Since in most cases preparatory work for subsequent clearances takes more time, letters of intent are being extended frequently entailing avoidable paper work for both Government and the entrepreneur. Government have, therefore, decided that in future the initial validity period for a letter of intent will be 12 months. In cases where neither foreign collaboration approval nor capital goods clearance is involved, an industrial licence will be issued at the initial stage itself instead of a letter of intent. In cases where only one further clearance *viz.*, foreign collaboration or capital goods clearance is necessary, one further extension of six months to the initial validity may be considered. In cases where both foreign collaboration and capital goods clearances are involved, two extensions of six months each beyond the initial validity period of 12 months may be considered. Applications for extensions to letters of intent should be addressed to the Administrative Ministry concerned. Government, however, wish to point out that applications for extensions beyond a total period of 18 or 24 months, as explained above, will in no event be entertained. If an entrepreneur is not able to file applications for all clearances he needs within the total periods indicated above, his letter of intent will lapse and he will have to apply for a fresh letter of intent if he so chooses.

There is considerable delay at present in converting valid letters of intent into industrial licences. To avoid this delay, letters of intent will be automatically converted in future into industrial licences when the final subsequent clearance that is required *viz.*, foreign collaboration or capital goods clearance is given. Applications for converting letters of intent issued prior to 1 November 1973 into industrial licences may be sent with a copy of the original approval to the Administrative Ministry concerned.

The initial validity of industrial licences will be two years within which period commercial production from the licensed capacity will have to be established. This period can be extended by the Administrative Ministry concerned if there is good and sufficient reason for two further periods of one year each. Thereafter, extensions to the validity of industrial licences will have to be decided upon by the Project Approval Board. The PAB while considering extensions in suitable cases where the investor has made serious efforts to commission capacity, will at the same time, take a strict view of cases where adequate progress has not been made so that pre-emption of capacity and delays in bringing licensed capacity to fruition can be effectively discouraged.

Entrepreneurs holding industrial licences are required to submit returns in Form 'G' prescribed under Rule 19 of the Registration and Licensing of Industrial Undertakings Rules 1952 within one month after the expiry of every half year ending 30 June and 31 December commencing from the date of issue of the licence, until such time as the industrial undertaking commences production. The Form 'G' returns should be submitted in future in duplicate to the Secretariat for Industrial Approvals (Monitoring Unit), Udyog Bhavan, New Delhi-110011. Copies

of the Form 'G' returns should also be sent to the Administrative Ministry concerned and to the Director General of Technical Development or other appropriate Technical Authority.

The Secretariat for Industrial Approvals has also been equipped with an Entrepreneurial Assistance Unit. This unit will help small, medium and new entrepreneurs in obtaining information on Industrial Policy and Procedures, the status of various industries and other relevant matters which might be of benefit to them. The Unit will also advise applicants on request regarding the status of their applications if there is a delay beyond the prescribed target date. Government have also recently brought out a publication entitled 'Guidelines for Industries 1973-74', which brings together useful information on a number of industries of particular interest to small, medium and new entrepreneurs. It is proposed to issue such guidelines on an annual basis. Government have also separately streamlined the procedural requirements that apply to the 'delicensed sector' of investments upto Rs. 1 crore. These arrangements are specifically intended to reduce delays for small and medium entrepreneurs.

Government hope that these arrangements will result not only in speedy and orderly approval procedures but also in enforcing an expeditious translation of letters of intent and industrial licences into productive capacity on ground.

PRESS NOTE

**SPECIAL FACILITIES FOR DIVERSIFICATION
IN MACHINERY INDUSTRIES***New Delhi, 4 March 1974*

In the context of Government's policy to promote fuller utilisation of existing capacity, the Government have been considering the question of working out a special procedure for machinery industries taking into account their distinctive features and potential. Undertakings engaged in the manufacture of industrial machinery possess the flexibility to produce different types of equipment based on substantially the same fabricating facilities but with appropriate changes in the design and engineering inputs. Facilities provided to machinery industries to diversify into new items of equipment, whether on a once-off or on a recurring basis, will thus go to help not only towards fuller utilisation of existing fabricating and design capacities but also in curtailing the bill for import of capital goods. Machinery manufacturers have also to respond quickly to meet possible orders as and when they come to notice.

2. The present facilities for diversification, without having to obtain an industrial licence, are subject to certain restrictions as to foreign exchange requirements, the status of the entrepreneurs etc. Government have now decided that, in addition to such facilities, machinery industries may be allowed full freedom for diversification of their production, within the group of machinery industries and within the overall licensed capacity of the undertaking on the basis of a special approval procedure. Accordingly, an industrial undertaking currently holding a licence for the manufacture of one or more items falling under the Schedule Industry—8: 'Industrial Machinery', will be eligible to undertake the manufacture of any other item falling under the same scheduled industry within the existing overall licensed capacity for such items. For this purpose, it will not be necessary to go through the usual procedure for industrial approval, and the Joint Secretary in charge of Industrial Machinery in the Ministry of Heavy Industry has been authorised to receive applications for such diversification and to accord necessary approval to such proposals. This facility will be available to all types of undertakings. It is expected that such applications for diversification will be dealt with speedily, and that final disposal will be communicated to the party within a period of 2 months.

3. Interested parties may submit five copies of the application in the form prescribed for the purpose to the Joint Secretary (Industrial Machinery), Ministry of Heavy Industry, Udyog Bhavan, New Delhi. Form IL prescribed for industrial licence for new articles, substantial expansion etc. is to be used for these applications also. The application should be accompanied by a Treasury Challan for an amount of Rs. 50/-* (Rupees fifty only).

*No licence fee is now necessary vide Press Note dated 23 July 1975.

PRESS NOTE

SPECIAL FACILITIES FOR DIVERSIFICATION IN MACHINE TOOL INDUSTRY

19 October 1974

In the context of Government's policy to promote fuller utilisation of existing capacity, Government had announced in March 1974, a special procedure of diversification in machinery industries, taking into account their distinctive features and potential. For some time past, Government have been considering the question of extending the facility for diversification in machine tool industry also as there is a great deal of commonality between industrial machinery and machine tools and like industrial machinery, machine tools, is also an integral part of the capital equipment. Undertakings engaged in the manufacture of machine tools possess the flexibility to produce different types of equipment based on substantially the same fabricating facilities but with appropriate changes in the design and engineering inputs.

2. The present facilities for diversification, without having to obtain an industrial licence are subject to certain restrictions as to foreign exchange requirements, the status of the entrepreneurs, etc. Government have now decided that, in addition to such facilities, machine tool industries may be allowed full freedom for diversification of their production within the group of machine tool industries and within the overall licensed capacity of the undertaking on the basis of a special approved procedure. Accordingly, any industrial undertaking currently holding a licence for the manufacture of one or more items falling under the scheduled industry No. 9 "machine tools" will be eligible to undertake the manufacture of any other item falling under the same scheduled industry within the existing overall licensed capacity for such items, *subject to the condition that the items to be diversified do not fall within the articles reserved for the small scale sector*. For availing this facility it will not be necessary to go through the usual procedure for industrial approval and the Joint Secretary in-charge of the machine tools industry in the Department of Heavy Industry has been authorised to receive applications for such diversification and to accord necessary approval to such proposals. This facility will be available to all types of undertakings. It is expected that such applications for diversification will be dealt with speedily and the final disposal will be communicated to the party within a period of two months.

3. Interested parties may submit five copies of the application in the form prescribed for the purpose to the Joint Secretary in-charge of machine tool industry in the Department of Heavy Industry, Udyog Bhavan, New Delhi. Form 'IL' prescribed for industrial licence for new articles, substantial expansion, etc. is to be used for this application also.

PRESS NOTE

FACILITIES FOR DIVERSIFICATION IN MACHINERY INDUSTRY BY MACHINE TOOLS MANUFACTURERS AND VICE VERSA

25 January 1975

In their Press Note dated 4 March, 1974, Government of India had announced a special procedure for diversification in machinery industries taking into account their distinctive features and potential, with a view to promote fuller utilisation of capacity. Government had extended this facility of diversification to machine tools industry in October 1974. The distinction between machinery and machine tools is very thin and undertakings engaged in the manufacture of machinery and machine tools possess the flexibility to produce different types of equipment based on substantially the same fabricating facilities but with appropriate changes in the design and engineering inputs. Government have, therefore, been considering for some time past the question of allowing machine tool manufacturers to diversify into machinery industries and *vice versa*, which will help not only towards fuller utilisation of existing fabrication and design capacities but also in curtailing the bill for import of capital goods.

2. With this end in view, Government have now decided that machinery and machine tool industries may be allowed full freedom for diversification of production within the group of their range of products and within the overall licensed capacity of the undertaking on the basis of a special approval procedure. Accordingly, an industrial undertaking currently holding a licence for the manufacture of one or more items falling under the scheduled industries "8 Industrial Machinery" or "9 Machine Tools" will be eligible to undertake the manufacture of any item falling under these two scheduled industries within the existing overall licensed capacity for such items, subject to the condition that the items to be diversified do not fall within the articles reserved for small scale sector. For this purpose, it will not be necessary to go through the usual procedure for industrial approval and the Joint Secretary in-charge of "Industrial Machinery" and "Machine Tools" in the Department of Heavy Industry has been authorised to receive applications for such diversification and to accord necessary approval to such proposals. This facility will be available to all types of undertakings. It is expected such applications for diversification will be dealt with speedily and that final disposal will be communicated to the party within a period of two months.

3. Interested parties may submit five copies in the form prescribed for the purpose to the Joint Secretary (Industrial Machinery and Machine Tools), Department of Heavy Industry, Udyog Bhavan, New Delhi. Form IL prescribed for industrial licence for new articles substantial expansion, etc. is to be used for these applications.

PRESS NOTE

**SPECIAL FACILITIES FOR DIVERSIFICATION
IN ELECTRICAL EQUIPMENT INDUSTRY**

12 March 1975.

In the context of Government's policy to promote fuller utilisation of existing capacity, Government had announced in March, 1974 a special procedure of diversification in machinery industries, taking into account their distinctive features and potentials. This facility was later extended to machine tool industry also, in terms of Government of India Press Note dated 19 October, 1974. The question of extending the facility further to the electrical equipment industry has been under consideration of the Government for some time past and it has been decided to extend this facility to the industries covered under the scheduled industry No. "5 Electrical Equipment—(1) Equipment for generation, transmission and distribution of electricity including transformers and (2) Electrical Motors" subject to certain exceptions. Accordingly, any industrial undertaking currently holding a licence for the manufacture of one or more items falling under the scheduled industry 5(1) "equipment for generation, transmission and distribution of electricity including transformers" and 5(2) "electrical motors" will be eligible to undertake the manufacture of any other item falling under the same sub-schedule within the existing overall licensed capacity for such items, subject to the following exceptions:—

- (a) power generation equipment;
- (b) transformers (including CTs and PTs) and switchgear in the higher ranges above 220 KV;
- (c) electric motors in the range above 1000 HP.

For availing this facility of diversification, it will not be necessary to go through the usual procedure for industrial approval and the Additional Secretary in-charge of electrical equipment industry in the Department of Heavy Industry has been authorised to receive applications for such diversification and to accord necessary approval to such proposals. This facility will be available to all types of undertakings. It is expected that such applications for diversification will be dealt with speedily and that the final disposal will be communicated to the party within a period of two months.

Interested parties may submit 5 copies of the application in the form IL to Additional Secretary, Department of Heavy Industry, Udyog Bhavan, New Delhi.

PRESS NOTE

SPECIAL FACILITIES FOR DIVERSIFICATION IN ELECTRICAL EQUIPMENT INDUSTRY

9 April 1975.

In the context of Government's policy to promote fuller utilisation of existing capacity, industrial undertakings currently holding a licence for the manufacture of one or more items falling under the scheduled industry 5(1) "equipment for generation, transmission and distribution of electricity including transformers" and 5(2) "electrical motors" were allowed to undertake the manufacture of any other item falling under the same sub-schedule within the overall licensed capacity for such items subject to certain exceptions. It was stipulated in the Press Note that interested parties should submit their applications to the Additional Secretary, Department of Heavy Industry, New Delhi.

In partial modification of the earlier stipulation, it has now been decided that application for diversification in items falling under the scheduled industry 5(1) "equipment for generation, transmission and distribution of electricity including transformers" will be received and disposed of by the Additional Secretary in the Department of Heavy Industry, while applications for diversification in items falling under the scheduled industry 5(2) "electrical motors" will be received and disposed of by the concerned Joint Secretary in the Department of Industrial Development, Udyog Bhavan, New Delhi.

PRESS NOTE

FACILITIES FOR DIVERSIFICATION IN
STEEL CASTINGS INDUSTRY

9 April 1975

Government have received representations that the units producing steel castings do not have a constant and optimum order book position for steel castings with the result that they have unutilised melting capacity in their plants. These units, had therefore, requested that they should be allowed to produce certain tonnage of steel ingots on techno-economic considerations.

2. Government have considered these representations and have noted that the capacity available with steel foundries is flexible enough to produce either steel castings or ingots and that such a flexibility would improve their economics of operation and capacity-utilisation.

3. It has accordingly been decided that steel castings industry may be allowed full freedom for diversification of production for manufacture of steel ingots within the overall licensed capacity of the undertaking on the basis of a special approval procedure. An industrial undertaking currently holding a licence for the manufacture of steel castings falling under Schedule industry I(A) (3) "Iron and steel castings and forgings" will be eligible to undertake the manufacture of steel ingots within the existing overall licensed capacity. The Joint Secretary in charge of foundry industry in the Ministry of Industry & Civil Supplies has been authorised to receive applications for such diversification and to take a final decision thereon. This facility will be available to all types of undertakings. It is expected that applications for diversification will be dealt with speedily and final disposal will be communicated to the party within a period of two months.

4. Interested parties may submit five copies of the applications in form 'IL' to the Ministry of Industry & Civil Supplies, Department of Heavy Industry, Udyog Bhavan, New Delhi.

PRESS NOTE

FACILITIES FOR FABRICATION OF CEMENT MACHINERY BY CEMENT MANUFACTURERS

17 May 1975

The question as to whether manufacturers of cement should be allowed to fabricate equipments for their own use has been under the consideration of Government. It has now been decided that a producer of cement may be permitted to fabricate equipments of cement machinery required for captive use provided that the party has got the necessary facilities to take up the manufacture of such equipments. This facility will be subject to the stipulation that the level of import assistance for taking up such fabrication of equipments shall in no case exceed the level which is available to the established cement machinery manufacturers. Before taking up the manufacture of cement machinery under this dispensation, the manufacturers will have to satisfy the Government that the machinery is, in fact, required for their own use for production of cement and will have to get a special authorisation to manufacture such machinery.

Government have decided to evolve a simplified procedure for consideration of applications received for the manufacture of cement machinery under this facility for diversification. An industrial undertaking currently holding a licence for the manufacture of cement falling under the scheduled industry 35(1) & (2) "Portland cement and "Asbestos cement" may apply for the manufacture of cement machinery to the Joint Secretary incharge of Industrial machinery in the Department of Heavy Industry, who has been authorised to receive such applications and to take a decision thereon. This facility will be available to all types of undertakings. It is expected that such applications will be dealt with speedily and that final disposal will be communicated to the party within a period of two months.

Interested parties may submit five copies of application in the form IL to the Joint Secretary (Industrial Machinery), Department of Heavy Industry, Udyog Bhavan, New Delhi.

PRESS NOTE

SPECIAL FACILITIES FOR DIVERSIFICATION
IN STEEL FORGING INDUSTRY

7 July 1975

In the context of Government's policy to promote fuller utilisation of existing capacity, Government have announced certain special facilities for diversification in specified industries since March, 1974, taking into account the distinctive features and potential of each industry. The question of extending this facility further to steel forging industry has been under consideration of the Government. It has now been decided that all the industrial units which have been licensed or registered for manufacture of iron and steel forgings falling under item IA(3) of the first schedule of the Industries (Development and Regulation) Act, are permitted to manufacture flanges, rings, elbows, tees, bends etc. falling under item IA(5) and IA(7) of the first schedule of the IDR Act, including infinish machined condition. This facility will be permissible to all the licensed and registered units subject to the condition that the diversification does not envisage installation of any imported machinery, and is within the existing overall licensed capacity of the undertaking.

2. The undertakings who will undertake diversification under these facilities should, in their production return intimate the detailed break up of items falling under these schedules to the DGTD.

3. As in other cases, where diversification facilities have been allowed by the Government in the past, a simplified procedure for consideration of applications received under this facility will be followed. An industrial undertaking currently holding a licence for the manufacture of iron and steel forgings falling under item IA(3) of the first schedule of the IDR Act may apply for the manufacture of flanges, rings, elbow, tees, bends etc. falling under item IA(5) and IA(7) of the first schedule of the IDR Act, including infinish machined condition. These applications will be received by the Joint Secretary concerned in the Deptt. of Heavy Industry who has been authorised to take a decision thereon.

4. This facility will be available to all types of undertakings. It is expected that such applications will be dealt with speedily and that final disposal will be communicated to the party in a period of two months.

5. Interested parties may submit five copies of the application in form 'IL' to the Joint Secretary (Deptt. of Heavy Industries), Udyog Bhavan, New Delhi.

PRESS NOTE

FACILITIES FOR DIVERSIFICATION IN STEEL INGOT INDUSTRY

18 December 1975

Government had in their Press Note dated 9 April, 1975 announced certain facilities to units engaged in steel castings to manufacture steel ingots within their licensed capacity. Such diversification was to be allowed on the basis of a special simplified procedure. Government have, for some time past, been considering the question of permitting steel ingot units to manufacture steel castings in the weight range of 10 to 20 tonnes.*

2. It has now been decided that electric furnace industry having the facility of manufacturing steel ingots or billets may be allowed full freedom for diversification of production for manufacture of steel castings in the weight range of 10 to 20 tonnes within their overall licensed capacity on the basis of a special approval procedure. An industrial undertaking currently holding a licence for the manufacture of steel ingots may be allowed to diversify into steel castings within the existing overall licensed capacity. The Joint Secretary concerned in the Department of Steel has been authorised to receive applications for allowing such diversification and to take a final decision thereon. This facility will be available to all types of undertakings. It is expected that applications for diversification will be dealt with speedily and final disposal will be communicated to the party within a period of 2 months.

3. Interested parties may submit five copies of the applications in form 'IL' to the Joint Secretary, Ministry of Steel & Mines, Deptt. of Steel, Udyog Bhavan, New Delhi.

*It has since been decided that electric furnace industry having the facility of manufacturing steel ingots/billets may diversify their production for manufacture of steel castings even below 10 tonnes weight range.

PRESS NOTE

FACILITIES FOR DIVERSIFICATION IN
PASSENGER CAR INDUSTRY

3 January 1976

In the context of Government's policy to permit fuller utilisation of existing installed capacity, Government have taken a number of steps and announced special procedures for according diversification facilities to industrial undertakings engaged in the manufacture of Industrial Machinery, Machine Tools, Electrical Equipment, Steel Castings etc. Government have now considered the question of extending the facility of diversification to the undertakings engaged in the manufacture of Passenger Cars, in consideration of the acute fall in demand and consequent problems faced by the industry. It has been decided that undertakings engaged in the manufacture of Passenger Cars covered under Schedule Industry 7(5) may be allowed full freedom for diversification of their production excluding items reserved for development in the small scale sector, within the group of industries falling under Schedule 7(5) and also the industries falling under Schedule 8—Industrial Machinery and Schedule 9—Machine Tools, within the overall licensed capacity of the undertakings on the basis of a special procedure. This facility will be available to all types of undertakings. For this purpose, it will not be necessary to go through the usual procedure for industrial approval and the Joint Secretary in the Department of Heavy Industry has been authorised to receive applications for such diversification and to accord necessary approval to such proposals. It is expected that applications for such diversification will be dealt with speedily and that final disposal will be communicated to the party within a period of two months.

2. Interested parties may submit five copies of the application in Form 'IL' to the Joint Secretary in the Department of Heavy Industry, Udyog Bhavan, New Delhi.

PRESS NOTE

FACILITY OF DIVERSIFICATION IN NON-FERROUS ALLOYS AND SEMIS INDUSTRIES TO MANUFACTURERS HOLDING REGISTRATION CERTIFICATES UNDER THE I(D & R) ACT

9 February 1976

The question of permitting certain flexibility to the existing manufacturers in the non-ferrous and alloys industries holding registration certificates under Section 10 of the I(D&R) Act has been under consideration of the Government for quite some time and it has been decided that such manufacturers may be permitted to diversify into such other types of non-ferrous alloys, semis, extrusion, etc., which they may not have been producing earlier, subject to the following conditions being satisfied:

- (i) Such production will take place within their overall entitlement of foreign exchange.
- (ii) No additional imported plant and machinery will be required to be installed for this purpose.
- (iii) No additional imported raw material will be permitted.
- (iv) The production will be within the overall generic head under which they have been registered under the Industries (Development and Regulation) Act.

This facility will be available to all types of undertakings. For this purpose, it will not be necessary to go through the usual procedure for industrial approvals. The parties who are interested to avail of this facility may submit the application in form 'IL' to the Joint Secretary in charge of non-ferrous metal industry in the Department of Mines and Metal, who has been empowered to take a decision on these applications. If permission is accorded, the applicants will be asked to send their registration certificates for necessary endorsement thereon to the Sectt. for Industrial Approvals in the Department of Industrial Development. It is expected that such applications will be dealt with speedily and the final disposal will be communicated to the party within a period of 2 months.

SPECIMEN FORM OF LETTER OF INTENT

SIA (LI)

Government of India
 Bharat Sarkar
 Department of Industrial Development
 Audyogik Vikas Vibhag
 SECRETARIAT FOR INDUSTRIAL APPROVALS
 (Licensing Unit)

No. LI:.....(—)

New Delhi-110011, dated.....

Messrs

Subject—Your application for the grant of an Industrial Licence under the Industries
 (Development and Regulation) Act 1951 dated.....

Ref:..... IL S. No.....

Gentlemen,

With reference to the above application, Government are prepared to issue an Industrial Licence under the Industries (Development and Regulation) Act 1951 to you for the establishment of a new undertaking at...../for effecting substantial expansion to your industrial undertaking at...../for the manufacture of a new article in your existing industrial undertaking at.....up to the capacities specified below on the basis of maximum utilisation of plant and machinery.

*Items of Manufacture**Annual Capacity*

2. The issue of the Industrial Licence will be subject to the conditions stipulated in the annexure. It will be further subject to the following additional conditions:

3. Please note that this letter of intent does not constitute an authorisation under the Monopolies and Restrictive Trade Practices Act 1969. Wherever applicable, such permission or clearance as may be required, under the provisions of that Act, should be separately obtained by you before taking any effective steps for the implementation of the letter of intent.

4. This letter of intent will be valid for a period of 12 months from its date of issue. Applications for capital goods clearance and/or foreign collaboration approval will have to be filed before the Secretariat for Industrial Approvals within the validity period of the letter of intent and such applications will not be considered if they are made after the expiry of the validity period. If an extension to the period of validity is found necessary, you may apply in this regard to the Ministry/Department of.....with full justification giving the circumstances under which and the period for which the extension is sought. You are informed that on no account will the validity of the letter of intent be extended beyond 12 months from the expiry of the initial validity period.

5. You are requested to confirm acceptance of the above conditions and to take effective and expeditious action in respect of your investment proposal. You may contact the Entrepreneurial Assistance Unit of the Secretariat for Industrial Approvals, Udyog Bhavan, New Delhi-110011 for any further clarification or assistance you may need.

Yours faithfully,

Under Secretary to the Government of India.

Copies to—

ANNEXURE

STANDARD CONDITIONS ATTACHED TO LETTER OF INTENT

1. The import of capital goods will be subject to the approval of Government and in accordance with the procedures prescribed by them.
2. The phased manufacturing programme will be settled to the satisfaction of Government.
3. The need for and the terms of foreign collaboration (financial and/or technical) will be settled to the satisfaction of Government.
4. In considering foreign collaboration approvals the following guidelines, *inter-alia*, will be taken into account:
 - (i) Government do not normally favour restrictions on export franchise in the proposals for foreign collaboration, except to such countries where the overseas collaborating parties have licensing agreements for local manufacture. On the other hand, Government would consider favourably proposals of foreign collaboration in which a suitable 'favoured licensee' clause is incorporated in the draft agreement to obtain a process licence, know-how, royalty and research and design assistance.
 - (ii) Approved/registered Indian Engineering Design/and Consultancy Organisations must be the prime consultants and Government will consider permitting the purchase of only such design and consultancy services from abroad as are not available within the country.
 - (iii) Proposals for the purchase of overseas technology (process licence fees, know-how, royalty, R and D etc.) must be accompanied by proposals regarding the programme of further development and improvement of technology in this field (as distinct from analytical or quality control) in the country.
 - (iv) It is desirable that approved/registered Indian Engineering design and consultancy organisations should be associated right from the start in any evaluation, selection and negotiation conducted for the purchase of overseas technology.
 - (v) It is desirable that enquiries to overseas parties should be on the basis of separate quotations for technology (licence fees, know-how, royalty, R and D assistance etc.) and design and consultancy services not available in the country.
 - (vi) The use of foreign brand names will not be permitted for the purpose of internal sales.
5. The import of raw materials will be regulated in accordance with the policies and procedures notified by Government from time to time.
6. If the scheme involves installation of new burning equipment either imported or indigenous like boilers, gas producers, kilns and furnaces, the Deputy General Manager, (Technical), Coal India Ltd., Calcutta-1, should be consulted giving the full details of the grade, size and quantity of coal required in the case of coal burning equipment or details of equipment using oil with a view to ascertain if the use of oil is inescapable. The results of this consultation shall be incorporated in the CG application for imported equipment. If the above

procedure in respect of installation of equipment either indigenous or imported is not followed, the Coal India will not take any responsibility for the grade and the size of coal required by the Unit nor is furnace oil likely to be released for the use of the Unit.

7. The scheme should be so worked out that the Railway Board will find it possible to provide rail transport to the extent necessary for the movement of raw materials and finished goods.

8. The applicant should obtain prospecting licences and mining leases as may be required from the State Government(s).

9. Adequate steps should be taken to the satisfaction of Government for the control of water, air and soil pollution.

SPECIMEN FORM OF INDUSTRIAL LICENCE SIA (IL)

Government of India
 Bharat Sarkar
 Department of Industrial Development
 Audyogik Vikas Vibhag
SECRETARIAT FOR INDUSTRIAL APPROVALS
 (Licensing Unit)

No. IL: S. No.....()

New Delhi-110011 Dated.....

Messrs.

Subject—Your application for the grant of an Industrial Licence under the Industries
 (Development and Regulation) Act 1951 dated.....

Ref: Your application IL. S. No.....and letter of intent issued in No. LI.....()
 dated.....

Gentlemen,

Application No. IL. S. No.....dated.....for a Licence/Permission having been
 received under Rule 7 of the Registration and Licensing of Industrial Undertaking Rules 1952 from.....
for the manufacture of.....
 the Central Government in exercise of the powers conferred on them by Rule 15(2) of the said Rules hereby grants
 this Licence/Permission to.....subject
 to the following conditions.

2. The industrial undertaking/substantial expansion/manufacture of new article shall have the installed
 capacity as specified below on the basis of maximum utilisation of plant and machinery.

Item of Manufacture

Annual Capacity

3. The industrial undertaking is to be located at.....

4. The undertaking/substantial expansion/manufacture of new articles shall be completed and commercial production established within a period of two years from the date of issue of this industrial licence.

5. The industrial licence will also be subject to the conditions stipulated in Annexure I. It will be further subject to the following additional conditions.

6. This industrial licence does not constitute an authorisation under the Monopolies and Restrictive Trade Practices Act 1969. Wherever applicable, such permission or clearance as may be required under the provisions of this Act should be separately obtained before taking effective steps for implementing the project.

7. This licence does not constitute any approval of the proposed capital structure as set out in the licence application. The approval of the Controller of Capital Issues, Ministry of Finance (Department of Economic Affairs), New Delhi should be sought separately in this regard. Any prospectus or other documents by which the public is invited to subscribe capital for the industrial undertaking shall contain the following statement.

“A Licence/Permission has been obtained from the Central Government for.....
.....
of which a copy is open to public inspection at the Head Office of the Company. It must be distinctly understood that, in granting this Licence/Permission, the Government of India do not take any responsibility for the financial soundness of this undertaking or for the correctness of any of the statements made or opinions expressed in regard to it.”

8. Your attention is invited to Rule 19 of the Registration and Licensing of Industrial Undertakings Rules 1952. In accordance with this rule, you should furnish returns in Form ‘G’ (reproduced in Annexure II) outlining the progress of implementation of the licence for each half year ending on 31 December and 30 June until commercial production from the project is established. The return should be furnished in duplicate to the Secretariat for Industrial Approvals (Monitoring Unit), Udyog Bhavan, New Delhi-110011; to the Ministry/Department of.....New Delhi, and to the Director General of Technical Development, Udyog Bhavan, New Delhi-110011 (in respect of industries other than textile industry)/Textile Commissioner, Bombay (in respect of textile industry). A copy of the return should also be

furnished to the Director of Industries of the State in which the undertaking is located. The return should be furnished without fail within one month of expiry of the half yearly period to which it relates.

9. The commencement of commercial production should also be notified to the authorities specified in paragraph 8 above in the form given in Annexure III.

10. This industrial licence will be valid only for a period of 2 years within which commercial production is to be established. If an extension to this period is found necessary, you may apply to the Ministry/Department of.....New Delhi with full justification giving the circumstances under which and the period for which the extension is sought.

11. You are requested to confirm acceptance of the above conditions and to take effective and expeditious action in respect of your investment proposal. You may contact the Entrepreneurial Assistance Unit of the Secretariat for Industrial Approvals, Udyog Bhavan, New Delhi-110011 for any further clarifications or assistance you may need.

Yours faithfully,

Under Secretary to the Government of India

Copies to:

ANNEXURE I

STANDARD CONDITIONS ATTACHED TO INDUSTRIAL LICENCE

1. The import of capital goods will be subject to the approval of Government and in accordance with the procedure prescribed by them.
2. The phased manufacturing programme will be settled to the satisfaction of Government.
3. The need for and the terms of foreign collaboration (financial and/or technical) will be settled to the satisfaction of Government.
4. The import of raw materials will be regulated in accordance with the policies and procedures notified by Government from time to time.
5. If the scheme involves installation of new burning equipment either imported or indigenous like boilers, gas producers, kilns and furnaces, the Deputy General Manager (Technical), Coal India Ltd., Calcutta-1, should be consulted giving the full details of the grade, size and quantity of coal required in the case of coal burning equipment or details of equipment using oil with a view to ascertain if the use of oil is inescapable. The results of this consultation shall be incorporated in the CG application for imported equipment. If the above procedure in respect of installation of equipment either indigenous or imported is not followed, the Coal India will not take any responsibility for the grade and the size of coal required by your Unit nor is furnace oil likely to be released for the use of your Unit.
6. The scheme should be so worked out that the Railway Board will find it possible to provide rail transport to the extent necessary for the movement of raw materials and finished goods.
7. The applicant should obtain prospecting licence and mining lease as may be required from the State Government (s).
8. Adequate steps should be taken to the satisfaction of Government for the control of water, air and soil pollution.
9. The industrial undertaking should obtain prior permission from the Government of India before effecting substantial expansion to its capacity and/or before establishing capacity for the manufacture of new articles other than those already covered by a licence.
10. In the event of a change in the name or ownership of a registered industrial undertaking or an undertaking in respect of which a licence or permission has been granted under the Industries (Development and Regulation) Act 1951 the procedure laid down in Rules 19A (1) and (2) of the Registration and Licensing of Industrial Undertakings Rules 1952 will apply.
11. If the proposal entails any utilisation of foreign exchange for which permission of the Reserve Bank is necessary under the Foreign Exchange Regulation Act, such permission should be separately obtained.

ANNEXURE II

[PRESCRIBED UNDER RULE 19 OF THE REGISTRATION AND LICENSING OF INDUSTRIAL UNDERTAKINGS RULES 1952 (as revised)]

FORM 'G' (Revised)

Report on the Progress made in the Establishment of Industrial Undertaking for the half year June/Dec. 19

(Only for capacities not yet in operation)
(Please read note at the end of the form before filling up)

1. Name & Address of the Industrial Undertaking:

.....
.....
.....

2. Location of Factory Code

--	--	--	--	--	--	--	--	--	--

STATE
DISTRICT

Whether in a backward District/Area

Yes

No

☐
☐

3. No. & date of Registration/Certificate/Licence/
Permission issued to the Undertaking.

No:
Date Year Month

4. Category of Undertaking

(i) Whether registered under MRTP Act, 1969

Yes

No

☐
☐

(ii) If yes, please specify:

(a) Whether under Section

20(a)(i)/20(a)(ii)

20(b)(i)/20(b)(ii)

(b) Please state the name of the Group

(iii)(a) Whether an Indian Company with non-resident interest ex-
ceeding 40%?

Yes

No

☐
☐

If so, please state the percentage of foreign equity?

%

--	--	--

(b) Whether a branch of a foreign Company?

Yes

No

☐
☐

(iv) Whether a Public Sector Undertaking?

Yes

No

☐
☐

If 'Yes' please specify whether it is:

Central Govt.

Central Govt. Corporation.

☐
☐

State Govt.

State Govt. Corpn.

☐
☐

(v) Whether a Joint Sector Undertaking?

Yes

No.

☐☐

If 'Yes' please specify whether it is with

(a) Central Govt.

☐

Central Govt. Corporation

☐

State Govt.

☐

State Govt. Corporation.

☐

(b) Name(s) of the Private Party/Parties
holding more than 25% or more equity shares.

.....
.....

(c) % Shares held

☐

Public

☐

Private

Yes

☐

No

☐

(vi) Whether a Co-operative Society?

5. Category of Licence:

NU

☐

NA

☐

SE

☐

NA/SE

☐

COB

☐

SHIFTING

☐

Any other, please specify

☐

6. If any extension has been granted,
then

(i) Letter of Extension No Date

(ii) Date upto which extension granted

7. (a) Name(s) of Product(s)

Capacity

Unit

Shifts

(i)

Code

(ii)

Code

(iii)

Code

(iv)

Code

(v)

Code

(b) I.D.R. Act Schedule No.

(c) Whether included in the Appendix I to
Industrial Licensing Policy 1973?

Yes

☐

No

☐

If yes, please state item No. of the Appendix.

.....

8. Whether any export obligations involved?
If 'yes' please specify the percentage (year-wise)

Yes

No

☐
☐

Year..... %
Year..... %
Year..... %
Year..... %
Year..... %
Year..... %

9. Stages of Progress

(i) Whether land acquired?

Yes

No

☐
☐

Investment on land (Rs. Lakh)

(a) Estimated expenditure on
factory construction:

Rs. Lakh

(b) Expenditure on factory construction
incurred to-date

Rs. Lakh

Not required to apply

Not applied

Applied

Approved

Rejected

(1)

(2)

(3)

(4)

(5)

(ii) Foreign Collaboration

☐
☐
☐
☐
☐

(a) If approved,

Whether FC agreement taken on record:

Yes

No

☐
☐

(1)

(2)

(3)

(4)

(5)

(iii) C.G.

☐
☐
☐
☐
☐

If approved,

(a) Whether FE credit has been obtained;

Yes

No

☐
☐

(b) Export obligation/bond/undertaking executed (if required);

Yes

No

☐
☐

(c) Import Licence has been issued;

Yes

No

☐
☐

(1)

(2)

(3)

(4)

(5)

(iv) Raw Materials

☐
☐
☐
☐
☐

(a) If approved whether Import Licence
obtained

Yes

No

☐
☐

(v) Progress made in the employment of staff.

(a) Managerial

Existing

Additional required

(b) Supervisory

Technical

Non-Technical

(c) Clerical		
(d) Skilled labour		
(e) Semi-skilled labour		
(f) Unskilled		
(g) Foreign technicians		
(h) Any other, please specify.		

10. Difficulties experienced in implementation

(i) Financial resources availability:

	Capital/Equity required (Rs. lakhs)	% paidup/ raised	Borrowing required (Rs. lakhs)	% sanctioned
(a) Internal				
(b) Foreign Investment				

(ii) Construction Material Availability

	Qty. Reqd.	% arranged for
(a) Steel (Tonnes)		
(b) Cement (Tonnes)		

(iii) **Raw Materials Availability**

(A) Description of main indigenous Raw Materials (each)		Qty. required to achieve annual capacity	Nature of difficulty in procurement			
			Scarce	Transport	Financial	Others (specify)
(a) Code		A/C Unit				
(b) Code		A/C Unit				
(c) Code		A/C Unit				

(B) Description of imported Raw Materials (each)		Qty. required to achieve annual capacity	Nature of difficulty in procurement			
(a) Code			Scarce	Transport	Financial	Others (specify)
(a) Code		A/C Unit				
(b) Code		A/C Unit				
(c) Code		A/C Unit				

(iv) **Plant & Machinery Availability**

(a) Imported Requirements	c.i.f. value	Rs. lakhs	% ordered	% acquired	When last of the balance expected to be acquired	
					Year	Month

Nature of difficulty in procurement		Credit arrangement	
Long delivery	Shipping/Transport	Year	Month

(b) Indigenous Requirement	Value	Rs. lakhs	% ordered	% acquired	When last of the balance expected to be acquired	
					Year	Month

Nature of difficulty in procurement		Other (specify	
Long delivery	Transport	Financial	Other (specify

V. Power Availability

(a) Annual Requirement

KVA Rating

--	--	--	--	--

KWH

--	--	--	--	--	--

(b) Annual availability

--	--	--	--	--

--	--	--	--	--	--

(c) Nature of difficulty in availability

Inadequate supply

☐

Transmission or sub-station difficulty

☐

Others (specify)

☐

VI. Fuel Availability

(Please specify: Coal/Coke/Furnace Oil /LD Oil/HSD Oil/Anyother

(a) Annual Requirement

Tonnes

--	--	--	--	--	--

(b) Annual Availability

--	--	--	--	--	--

(c) Nature of difficulty in availability

Short Supply

☐

Transport difficulty

☐

Others (specify)

☐

11. Considering these difficulties, likely date of commissioning

Year
(1) (2)

--	--

Quarter
1 2 3 4

--	--	--	--

12. Nature of assistance needed from the Government for early commissioning:

Foreign Collaboration

☐

Foreign Exchange

☐

CG imported

☐

Power

☐

Indigenous Plant & Machinery

☐

Fuel

☐

Raw Material

☐

Transport/ Wagons

☐

Indigenous borrowing

☐

Others, please specify

☐

Additional information, if any

Place.....

Date.....

Signature.....

- Note:
- 1. Kindly place a mark of ✓ in appropriate boxes.
 - 2. Boxes for codes may be left blank.
 - 3. Quantity figures may be filled in the prescribed boxes.
 - 4. Value figures may be given in Rs. lakhs upto 2 decimal places.

ANNEXURE III

**FORM OF INTIMATION OF COMMENCEMENT
OF PRODUCTION OF LICENSED/REGISTERED UNITS**

1. Name of the applicant.
2. Name and address of the undertaking.
3. Date of submission of application for licence.
4. Licence number and date.
5. Location of the undertaking (Please indicate whether located in a backward district).
6. Whether the Unit has availed of the Central Subsidy applicable to certain backward areas?
7. Items of manufacture and the installed capacity per annum on maximum shift operation basis.
8. Date of commencement of production of each of the items for which licence/registration has been granted and details of production achieved so far.
9. If production of some of the items is yet to be started, the approximate date by which such production is likely to start.
10. Value of land and buildings and of plant and machinery actually installed (separately for each of these).
11. Value of imported machinery installed.
12. Number of workers employed in the undertaking.
13. Any changes in the information supplied in the original application.
14. Whether a foreign brand name is used on any item of manufacture ?
If so, please quote the relevant permission number and date.

MONTHLY PRODUCTION RETURN

NAME OF FACTORY YEAR MONTH

CODE

--	--	--	--	--	--	--	--

--	--

--	--

FACTORY ADDRESS

DISTRICT STATE

PART I: INDUSTRY/PRODUCT

NAME OF INDUSTRY/PRODUCT

CODE

--	--	--	--	--	--	--	--

PHYSICAL ACCOUNTING UNIT

_____ A/U 1

_____ A/U 2

CODE

--	--

A/U 1

--	--

A/U 2

NUMBER OF
DAYS WORKED
DURING THE
MONTH

--	--

AVERAGE NO.
OF SHIFTS
PER DAY

--	--

WORKING
HOURS
PER SHIFT

--	--

ANNUAL CAPACITY

LICENSED

OR

REGISTERED

INSTALLED

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

A/U 1

PART II: PRODUCTION FOR INDUSTRY/PRODUCT

FACTORY CODE

--	--	--	--	--	--	--	--	--	--

PRODUCT CODE

--	--	--	--	--	--	--	--	--	--

YEAR

--	--

MONTH

--	--

PHYSICAL QUANTITY

--	--	--	--	--	--	--	--

A/U 1

EX-FACTORY PRODUCTION Value
(Th. Rs.)

--	--	--	--	--	--	--	--

PLANNED
TARGET

--	--	--	--	--	--	--	--

A/U 2

ACTUAL
TOTAL
PRODUCTION

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

PRODUCTION
FOR EXPORT

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

A/U 2

CLOSING
STOCK
(OF FINISHED
GOODS AT
THE END OF
THE MONTH)

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

A/U 2

ORDERS

IN HAND AT THE
BEGINNING OF
THE MONTH

RECEIVED DURING
THE MONTH

CANCELLED DURING
THE MONTH

QTY (A/U1)

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

VALUE
(Th. Rs.)

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

FULFILLED DURING THE MONTH

QUANTITY (A/U1)

--	--	--	--	--	--	--	--

VALUE
(Th. Rs.)

--	--	--	--	--	--	--	--

PART III: MAJOR SUB-PRODUCTS

FACTORY CODE

PRODUCT CODE

YEAR

MONTH

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

--	--

--	--

1. NAME OF MAJOR SUB-PRODUCT

CODE

--	--	--	--	--	--	--	--

PRODUCTION PHYSICAL QUANTITY

EX-FACTORY VALUE (Th. Rs.)

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

A/U 2

2. NAME OF MAJOR SUB-PRODUCT

CODE

--	--	--	--	--	--	--	--

PRODUCTION PHYSICAL QUANTITY

EX-FACTORY VALUE (Th. Rs.)

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

A/U 2

3. NAME OF MAJOR SUB-PRODUCT

CODE

--	--	--	--	--	--	--	--

PRODUCTION PHYSICAL QUANTITY

EX-FACTORY VALUE (Th. Rs.)

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

A/U 2

4. NAME OF MAJOR SUB-PRODUCT

CODE

--	--	--	--	--	--	--	--

PRODUCTION PHYSICAL QUANTITY

EX-FACTORY VALUE (Th. Rs.)

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

A/U 2

PART III: MAJOR SUB-PRODUCTS

FACTORY CODE

--	--	--	--	--	--	--	--

PRODUCT CODE

--	--	--	--	--	--	--	--

YEAR

--	--

MONTH

--	--

5. NAME OF MAJOR SUB-PRODUCT

CODE

--	--	--	--	--	--	--	--

PRODUCTION PHYSICAL QUANTITY

EX-FACTORY VALUE (Th. Rs.)

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

A/U 2

6. NAME OF MAJOR SUB-PRODUCT

CODE

--	--	--	--	--	--	--	--

PRODUCTION PHYSICAL QUANTITY

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

A/U 2

EX-FACTORY VALUE (Th. Rs.)

--	--	--	--	--	--	--	--

7. NAME OF MAJOR SUB-PRODUCT

CODE

--	--	--	--	--	--	--	--

PRODUCTION PHYSICAL QUANTITY

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

A/U 2

EX-FACTORY VALUE (Th. Rs.)

--	--	--	--	--	--	--	--

8. NAME OF MAJOR SUB-PRODUCT

CODE

--	--	--	--	--	--	--	--

PRODUCTION PHYSICAL QUANTITY

--	--	--	--	--	--	--	--

A/U 1

--	--	--	--	--	--	--	--

A/U 2

EX-FACTORY VALUE (Th. Rs.)

--	--	--	--	--	--	--	--

PART IV: MAN/MACHINE UTILISATION

FACTORY CODE

--	--	--	--	--	--	--	--

PRODUCT CODE

--	--	--	--	--	--	--	--

YEAR

--	--

MONTH

--	--

TOTAL
MAN-HOURS AVAILABLE

--	--	--	--	--	--	--	--

TOTAL
MAN-HOURS UTILISED

--	--	--	--	--	--	--	--

TOTAL
MACHINE-HOURS AVAILABLE

--	--	--	--	--	--	--	--

TOTAL
MACHINE-HOURS UTILISED

--	--	--	--	--	--	--	--

PART V: BOTTLENECKS

1. POWER SHORTAGE:

CODE

--	--

PERCENTAGE LOSS
IN MAN-HOURS

--	--	--

PERCENTAGE LOSS
IN MACHINE-HOURS

--	--	--

2. LABOUR TROUBLE

CODE

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--	--	--

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3. INDIGENOUS RAW MATERIAL SHORTAGE

CODE

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--	--	--

4. IMPORTED RAW MATERIAL SHORTAGE

CODE

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--	--	--

--	--	--

5. WAGON SHORTAGE

CODE

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6. FUEL SHORTAGE

CODE

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--	--	--

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7. MACHINE DOWN TIME

CODE

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PART VI: INFRA-STRUCTURE INPUTS

FACTORY CODE								PRODUCT CODE								YEAR		MONTH													
(i) STEEL PHYSICAL ACCOUNTING UNIT : TONNES CODE								QUANTITY REQ- UIRED FOR PLANNED TAR- GET PRODUC- TION DURING HALF YEAR ENDING 30/6 and 31/12.								QUANTITY REC- EIVED FOR CUR- RENT PRODUC- TION DURING HALF YEAR ENDING 30/6 and 31/12.								QUANTITY CON- SUMED DURING HALF YEAR FNDING 30/6 and 31/12.							
(a) TYPE.....																															
(b) TYPE.....																															
(c) TYPE.....																															
(d) TYPE.....																															
(e) TYPE.....																															
(f).....																															

FACTORY CODE								PRODUCT CODE								YEAR		MONTH													
(ii) NON - FERROUS METALS (Specify main types)								QUANTITY REQ- UIRED FOR PLANNED TAR- GET PRODUC- TION DURING HALF YEAR ENDING 30/6 and 31/12.								QUANTITY REC- EIVED FOR CUR- RENT PRODUC- TION DURING HALF YEAR ENDING 30/6 and 31/12.								QUANTITY CON- SUMED DURING HALF YEAR ENDING 30/6 and 31/12.							
PHYSICAL ACCOUNTING UNIT: TONNES CODE																															
(a) TYPES : COPPER																															

(b) TYPES : ALUMINIUM (E.C. Grade)			
(c) TYPES : ZINC			
(d) TYPES : LEAD			
(e) TYPES :			
(f)			

FACTORY CODE	PRODUCT CODE	YEAR	MONTH

(iii) OTHER IMPORTED
RAW MATERIAL
& COMPONENTS

PHYSICAL ACCOUNTING
UNIT.....
CODE

QUANTITY REQUIRED FOR PLANNED TARGET PRODUCTION DURING HALF YEAR ENDING 30/6 and 31/12.	QUANTITY RECEIVED FOR CURRENT PRODUCTION DURING HALF YEAR ENDING 30/6 and 31/12.	QUANTITY CONSUMED DURING HALF YEAR ENDING 30/ and 31/12.
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(a).....			
(b).....			
(c)			
(d)			
(e)			
(f)			

FACTORY CODE

--	--	--	--	--	--	--	--

PRODUCT CODE

--	--	--	--	--	--	--	--

YEAR

MONTH

--	--

--	--

QUANTITY REQUIRED
FOR PLANNED TARGET
PRODUCTION DURING
HALF YEAR ENDING
30/6 and 31/12.

QUANTITY RECEIVED
FOR CURRENT
PRODUCTION DURING
HALF YEAR ENDING
30/6 and 31/12.

QUANTITY CONSUMED
DURING HALF YEAR
ENDING
30/6 and 31/12.

(iv) WAGON

PHYSICAL ACCOUNTING
UNIT: NUMBERS

CODE

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(iv)

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(v) COAL

PHYSICAL ACCOUNTING
UNIT: TONNES

CODE

--	--

(v)

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--	--	--	--	--

(vi) COKE

PHYSICAL ACCOUNTING
UNIT: TONNES

CODE

--	--

(vi)

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(vii) FURNACE OIL

PHYSICAL ACCOUNTING
UNIT: KILO-LITRES

CODE

--	--

(vii)

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--	--	--	--	--

FACTORY CODE

PRODUCT CODE

YEAR

MONTH

--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--

--	--

--	--

(viii) POWER

PHYSICAL ACCOUNTING
UNIT : M W H

CODE

--	--

QUANTITY REQUIRED
FOR PLANNED TARGET
PRODUCTION DURING
HALF YEAR ENDING
30/6 and 31/12.

QUANTITY RECEIVED
FOR CURRENT
PRODUCTION DURING
HALF YEAR ENDING
30/6 and 31/12.

QUANTITY CONSUMED
DURING HALF YEAR
ENDING
30/6 and 31/12.

(viii)

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--	--	--	--	--

--	--	--	--	--

(ix) WATER

PHYSICAL ACCOUNTING
UNIT : KILO-LITRES

CODE

--	--

(ix)

--	--	--	--	--

--	--	--	--	--

--	--	--	--	--

(x) OTHERS

PHYSICAL ACCOUNTING
UNIT :

CODE

--	--

(x)

--	--	--	--	--

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--	--	--	--	--

(xi)

PHYSICAL ACCOUNTING
UNIT :

CODE

--	--

(xi)

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PART VII: EMPLOYMENT STATISTICS
HALF YEAR ENDING 30/6 and 31/12.

(Data on this page to be filled half yearly period in Production Return for June/December each year).

FACTORY CODE 	PRODUCT CODE 	YEAR 	MONTH
EMPLOYEE CATEGORY (Last half-year)	AVERAGE NUMBER OF PERSONS EMPLOYED (Last half-year)		
(a) SUPERVISORY			
(b) CLERICAL			
(c) SKILLED			
(d) SEMI-SKILLED			
(e) UN-SKILLED			
(f) OTHER (IF ANY) NOT RECOGNED UNDER FACTORY ACT			

SIGNATURE
NAME OF THE FIRM

Forwarded to:

1. Development Officer (Sponsoring Directorate)
 Directorate General of Technical Development, Udyog Bhavan, New Delhi-110011
2.(Administrative Ministry), Government of India, New Delhi.
3. Additional Director, Directorate of Statistics and Intelligence Branch,
 (Central Excise), Indraprastha Estate, New Delhi.
4. Director of Industries State

LIST OF INDUSTRIES

[In which code numbers have either been provided or are being provided by the Directorate General of Technical Development]

1. Cement
2. Paper
3. Newsprint
4. Caustic soda
5. Soda ash
6. Calcium carbide
7. Auto tyres and tubes
8. PVC resins
9. Synthetic detergents
10. Soap
11. Rayon tyre cord
12. Nylon tyre cord
13. Industrial gases
14. Milk products
15. Nitrogenous fertilisers
16. Phosphatic fertilisers
17. Aluminium
18. Commercial vehicles
19. Tractors
20. Scooters
21. Bicycles
22. Ball & roller bearings
23. Industrial fasteners
24. Razor blades
25. Electric motors
26. Transformers
27. Stampings and laminations
28. Electric fans
29. Domestic refrigerators
30. Room air-conditioners
31. Power capacitors
32. Motor starters
33. Power cables
34. ACSR/AAC conductors
35. Enamelled winding wires
36. Paper etc. covered winding wires and strips
37. Dry cells
38. Storage batteries
39. GLS lamps
40. Flourescent tubes

PRESS NOTE

SUBMISSION OF MONTHLY PRODUCTION RETURNS TO DGTD

New Delhi, 1 August 1975

The Government of India have taken a number of measures towards streamlining of procedures for according approvals relating to issue of letters of intent, industrial licences, foreign collaboration, import of capital goods etc., and have liberalised the licensing policy from time to time aiming at accelerating the growth of production and diversification of production in order to ensure higher utilisation of existing capacity.

2. The 'Guidelines for Industries—1975-76', besides containing detailed information on the above procedures indicates the scope for setting up new industrial undertakings. A number of industries have been identified as having export potential. The 'Guidelines' also gives information on the industries for which there is no scope for new capacity to be approved during the year 1975-76, so that attention of prospective entrepreneurs is channelled to directions in which there is scope and need for new capacity to be created.

3. In its efforts to monitor growth of production and utilisation of the available capacities, the Government is handicapped for want of timely submission of monthly production returns to the DGTD. Monthly production returns as detailed in the Guidelines for Industries—1975-76 (vide Appendix XIII) are required to be furnished by both licensed and registered units to the DGTD every month by the 10th day of the following month. It has been noted, however, that a large number of undertakings either do not send these returns at all for many months or that these returns are received long after the prescribed date, thus defeating the very purpose for which these returns are required to be submitted.

4. The Government take a serious view of the failure on the part of entrepreneurs in not sending monthly production statistics in time to the DGTD. It has been decided that defaulting units which do not send in monthly production returns in time may be denied assistance (by way of raw material allocations etc.) as is recommended for them by the DGTD.

PRESS NOTE

No. F. 1/11/71-EF (Inv)
Government of India
Bharat Sarkar
Ministry of Finance
Vitta Mantralaya
Department of Economic Affairs
Arthik Karya Vibhag

New Delhi, 19 February 1972

30 Magh 1893 (Saka)

Subject: Guidelines for Reduction of Foreign Holdings in Foreign Majority Companies

The question of formulating a workable relationship between the size of any expansion allowed to a foreign majority company and the extent of dilution in its foreign holdings to be stipulated as a condition thereof, has been examined and it has now been decided by the Government that companies with foreign holdings exceeding 75 per cent will raise 40 per cent of the estimated cost of expansion, by issue of additional equity capital (inclusive of premium, if any) to Indians only; the corresponding proportions for companies with foreign holdings exceeding 60 per cent but not exceeding 75 per cent, and those with foreign holdings exceeding 51 per cent but not exceeding 60 per cent will be $33\frac{1}{3}$ per cent and 25 per cent respectively. The companies concerned will be given a reasonable time limit for fulfilling the condition.

2. The companies will settle with the Controller of Capital Issues the total amount to be raised, its break-up into the face value of the issue and the premium to be charged thereon, and the timing of the issue. It would be permissible for the companies to suggest to the Controller of Capital Issues the clubbing of their obligations in case more than one expansion happens to get sanctioned to them at about the same time.

3. The cost of expansion referred to above represents the cost of the land, building, and plant and machinery required for the expansion. Also, the reference to foreign holding relates only to the direct non-resident holdings.

4. The expansion of the capital base resulting from the application of the formula will be independent of any further expansion that might result from the operation of the convertibility clause in respect of loan assistance to be provided by public financial institutions for the same expansion.

FORM FC

APPLICATION FOR FOREIGN COLLABORATION

(To be submitted with 10 spare copies)

1. Name and address of the applicant.
2. (i) Name and registered office address of the Indian company which will implement the project. Please specify whether the company is existing or proposed. If the company is proposed to be formed give the names and addresses of the promoters.
(ii) Whether it is/will be a public limited or a private limited company.
3. (i) Whether the applicant and/or the implementing company is registered under the Monopolies and Restrictive Trade Practices Act 1969.
(ii) If so, whether clearances required for implementing the proposed scheme under the MRTP Act 1969 have been obtained.

PART 'A'—Capital Structure and Form of Management

[NOTE: Information in reply to questions 4, 5, 6 and 7 should be furnished in respect of the applicant company as well as in respect of the company which will implement the project.]

4. Is the Indian company controlled either directly or indirectly by non-residents? If so,

Please give particulars of (i) the direct participation and (ii) the indirect beneficial participation, *i.e.*, in the list of shareholders, are there any companies which themselves have non-resident share holding? (Particulars of major shareholdings of 5% and above of the equity capital alone may be taken for this purpose).

5. Name of the Directors of the Board—

(i) Foreign Nationals

(ii) Indian Nationals

6. Name of Selling Agents, Secretaries, Treasurers and Consultants to the company, if any, existing or proposed and the extent, if any, of foreign equity interest therein.

7. Capital Structure

I Existing

Equity

Preference

Authorised

Subscribed

Paid-up

of which

- (a) Foreign holding
 - (i) Direct participation
 - (ii) Indirect beneficial participation
(as defined in column 4 above)
 - (iii) Total: [(i) and (ii)]
- (b) Indian holding.
- (c) (i) Borrowing
 - (ii) Existing debt; equity ratio in the company.

II. Proposed

Authorised

Subscribed

Paid up

- (a) Foreign holding
 - (i) direct participation
 - (ii) indirect beneficial non-resident participation (as defined in column 4 above).
 - (iii) Total [(i) and (ii)]
- (b) Indian holding.

8. Whether the proposal contains any provision which relate to matters pertaining to Company Law or which attract the provisions of the Foreign Exchange Regulation Act 1973. If so, what steps the company has taken or proposes to take in this connection?

PART 'B'—Line of Manufacture, Capital Cost and Import Content

9. (i) Existing business/items(s) of manufacture and the No. and date of Industries (Development and Regulation) Act licence, if any.
- (ii) Is/are the item/items mentioned above being manufactured with foreign collaboration? If so, please give the particulars of each collaboration, including the names of collaborators.
- (a) Item of manufacture/proposed activity for which foreign collaboration is applied for:
 - (b) Has any letter of intent/industrial licence been obtained under the Industries (Development and Regulation) Act 1951 for the items of manufacture for which the foreign collaboration application has been made? If so, furnish an attested true copy.
 - (c) In case an application for an industrial licence under the Industries (Development and Regulation) Act 1951 has been made, furnish the reference number and date.
 - (d) If registered with the DGTD, please quote the reference and the annual capacities for which registered.
 - (e) Whether the proposed manufacturing programme would be in the small-scale sector? Furnish registration No. if any and capacities for which registered.

10. Estimated value of annual production

<i>Year</i>	<i>Items of manufacture</i>	<i>Quantity</i>	<i>Ex-factory value net of excise duties</i>	<i>Ex-factory value after deducting landed cost of imported components, if any.</i>
1st Year				
2nd Year				
3rd Year, etc.				

11. Location of factory

Tehsil.....District.....State.....

12. Proposed capital cost of the project

Rs.

(a) Cost of capital equipment—

(i) Imported;

(ii) Indigenous.

(b) If imported equipment is required, has the capital goods application been submitted/ approved? Furnish reference No. and date of application/approval.

(c) Cost of other items of capital nature viz.,

Land

Building

(d) Working capital.

13. Estimated requirements of raw materials and components.

<i>Sl. No.</i>	<i>Name of raw material/component</i>	<i>Indigenous or imported</i>	<i>Quantity</i>	<i>Value (c. i. f. value if imported)</i>
1	2	3	4	5

14. Phased manufacturing programme for import substitution. Furnish details for 5 years.

Year	Item of manufacture	Annual production		Percentage by C.I.F. value of imported content (i.e., total of all imported raw materials and components)
		Quantity	Ex-factory value	
1	2	3	4	5
1st Year				
(i)				
(ii)				
(iii)				
(iv)				
2nd Year				
(i)				
(ii)				
(iii)				
(iv)				
3rd Year				
etc.				

PART 'C'—Details of Foreign Collaboration

15. Name and address of the foreign collaborator (s) with whom the Indian Company proposes to collaborate.
16. What will be the specific services to be rendered by the foreign collaborator in pursuance of the agreement.
17. Terms of foreign collaboration:
 - (a) If the foreign collaborator proposes to invest in the equity capital of the Indian company, furnish the following details:
 - (i) The amount of foreign equity investment (in rupee equivalent).
 - (ii) What percentage it would constitute of the total authorised equity capital of the Indian company.
 - (iii) Whether the foreign investment would be in the form of cash or in terms of shares for supply of equipment/technical know-how/other services.
 - (iv) Estimated annual payments on dividends and profits (gross of taxation) on the foreign investment.

- (i) Technical know-how fees.
- (ii) Payments for design, engineering, consultancy, etc.
- (iii) Payments, if any, for use of patents, brand names, trade mark and the like.
- (iv) Any other payment of a lump sum nature.

Total:

[NOTE: Indicate in each case the proposed instalments in which the above payments will be made.]

- (c) (i) Whether a recurring annual royalty is proposed? If so, the percentage of royalty (gross of taxes) computed as a proportion of the ex-factory value of annual production (net of excise duties) after deducting the landed cost of imported components, if any.
 - (ii) Are separate rates of royalty envisaged on internal sales and exports? If so, furnish the figures.
 - (d) Proposed duration of the agreement and the period for which royalty payments will be restricted.
18. (i) If this application is for the extension of an existing collaboration agreement, please indicate the period for which the collaboration has already run and attach a copy of the previous approvals.
- (ii) In case of (i) above, please indicate whether you have set up any R&D Cell to absorb the know-how and the progress achieved in this regard.
- (iii) In case the initial approval for foreign collaboration was subject to any export obligation, to what extent such obligations have been fulfilled so far?
19. Are the items proposed to be manufactured patented in India? If so, the dates of expiry of the patents.
20. Does the Indian company propose to use any foreign brand name for internal sales and/or exports?

PART 'D'—Other Information

21. Nature of export franchise:

- (i) Please specify the names of the countries, if any to which exports are excluded; and if so, the reasons therefor.
- (ii) Please indicate if the Letter of Intent/Industrial Licence or Capital Goods Clearance granted for this item contains any stipulations in regard to exports.

(iii) Export commitments, year-wise, which the applicant is prepared to undertake:

	<i>Quantity</i>	<i>Percentage of production</i>	<i>Value (FOB)</i>
1st Year			
2nd Year			
3rd Year			
4th Year			
5th Year			
			Total:

(iv) Brief details on how the applicant proposes to fulfil the export commitments.

22. Effect on balance of payments for the first 5 years

A. Foreign exchange earnings

- (i) Foreign exchange earnings based on f.o.b. value of exports covered by export obligation (*vide* col. 21 (iii) above).
- (ii) Foreign exchange savings anticipated as a result of import substitution.

Total A

B. Foreign exchange outgo on

- (i) import of machinery and equipment [*vide* col. 12(a) (i) above].
- (ii) import of raw materials and components (*vide* col. 13 above).
- (iii) Dividends and profits [net of taxes based on col. 17(a) (iv) above].
- (iv) Lumpsum payments [net of taxes based on col. 17(b) above].
- (v) Royalty payments [net of taxes based on col. 17(c) above taking into account the value of production in col. 10 above].
- (vi) Number of foreign technicians proposed to be employed and payments to them (net of taxes).
- (vii) Other payments, if any.

Total B.

C. Net foreign exchange inflow (A-B)

23. Give an account of the attempts made to explore alternative sources for the import of technology and the techno-economic considerations for preferring the particular collaboration which has been applied for.

24. Whether the proposed collaboration will contain any restrictive arrangements or clauses which in any manner bind the Indian party with regard to the procurement of capital goods, components, spares, raw materials or the use, adaptation and improvement of know-how or pricing policy, selling arrangements, etc.
25. Please confirm that the foreign collaborator is agreeable that the technical know-how/ product design/ engineering design can also be made available to other Indian parties, should it become necessary, on terms and conditions as may be agreed to by all the parties concerned, including the foreign collaborator, and subject to the approval of the Government.
26. Whether the foreign collaborator has other collaborations with any other party in India for the same or similar product. If so, give details.
27. What steps does the applicant propose to take for research and development in respect of the technology involved, engineering, design, training of Indian technological personnel and other measures for the absorption, adaptation and development of the imported technology. Give specific details.

Date _____

Signature of the Applicant

Place _____

ILLUSTRATIVE LIST FOR FOREIGN COLLABORATION

LIST I (A)

Illustrative List of Industries where Foreign Investment may be Permitted

<i>Industry</i>	<i>Royalty Range</i>
Oil and Chemical Industries	
(i) Fertilizers (other than single super-phosphate)	No royalty
(ii) Selected pesticides	Upto 5%
(iii) Off-shore oil exploration	No royalty
(iv) Oil refining including the production of oil	—
(v) Special additives and chemicals required for the oil industry	Upto 4%
(vi) Petro-chemicals (not otherwise specified)	Upto 5%
(vii) Thermo plastics	Upto 3%
(viii) Synthetic rubber	Upto 5%
(ix) Detergent alkalytes	Upto 5%
(x) Certain drugs and pharmaceuticals	Upto 5%
(xi) Edibles, pharmaceutical, photographic and special gelatine	Upto 3%
Paper, Pulp and Allied Industries	
(i) Newsprint	No royalty
(ii) Speciality papers like electrical insulation papers and boards such as cable paper, condenser paper, presspahn, press board, leatheroid, photo base paper and special type of filter paper	Upto 3%
(iii) Paper and board makers felts	Upto 3%
Rayon and Synthetic Fibre Industries	
Nylon and polyester yarn/fibre including industrial yarn, polypropylene fibre, poly-vinylalcohol fibre, acrylic fibre	Upto 20 paise per Kg.
Asbestos and Carbon Products	
(i) Asbestos packing and jointing	Upto 3%
(ii) Graphite electrodes	Upto 3%
Timber-based Industries	
(i) Fibre board	No royalty
(ii) Particle board	No royalty
Refractories (special types including electro-cast refractories)	Upto 3%
High tension insulators and bushings and solid core insulators for railways	Upto 3%
Abrasive grains	Upto 3%

Industrial Machinery

(i) Cylindrical, tapered, spherical and other special bearings (excluding ball bearings)	Upto 5%
(ii) Some items of textile machinery like combers, automatic pirn winding and warp winding machines, processing and finishing machinery	Upto 5%
(iii) Jute machinery (certain selected items)	Upto 5%
(iv) Rayon machinery	Upto 5%
(v) Specialised printing machinery (for example, rotary printing presses, offset printing presses and composing machinery, etc.)	Upto 5%
(vi) Rubber processing machinery	Upto 5%
Seamless tubes	No royalty
Cast iron, cast steel and forged rolls	Upto 3%
Specialised items of chemical and pharmaceutical machinery	Upto 5%
Silicones	Upto 5%
Catalysts	Upto 5%
Commercial explosives	Upto 3%
Watches	Upto 3%
Standard and portable type-writers	Upto 3%
Electric typewriters	Upto 3%
Data processing machines	Upto 5%
Calculating and adding machines	Upto 3%
Precision measuring tools	Upto 3%
Machine tools and accessories (selected types)	Upto 5%
Programme control equipment	Upto 5%
High duty wharf and floating cranes of all types	Upto 5%

Electrical Engineering Industries

(i) Electro-magnetic and time relays	Upto 5%
(ii) Railway electrical signalling	Upto 3%
(iii) HRC fuses	Upto 3%
(iv) Germanium and silicon diodes	Upto 3%
(v) Dry cells and train lighting cells	Upto 3%
(vi) Electronic instruments and selected electronic components	Upto 5%
(vii) Selected measuring instruments	Upto 5%
(viii) Electro-medical, optical and dental instruments and equipments for medical profession	Upto 5%
(ix) DC motors and controls	Upto 3%
(x) Transistors and very high frequency electrical equipment	Upto 3%
(xi) LT and HT circuit breakers	Upto 3%
(xii) Power cables above 11 KV	Upto 3%

<i>Industry</i>	<i>Royalty Range</i>
Earth-moving Equipment	
(crawlers, tractors, scrapers, excavators blast hole drills, heavy duty dumpers and haulers, pay loaders, tractor shovels, tyre mounted cranes)	Upto 5%
Power tillers	Upto 3%
Specialised automobile ancillaries	Upto 5%
Industrial gases (oxygen, nitrogen, hydrogen, carbon-dioxide, acetylene)	No royalty
Mine safety/rescue appliances	No royalty
Gas testing apparatus for mines	No royalty
Selected Ferro Alloys	Upto 5%
Ferro-molybdenum	
Ferro-titanium	
Ferro-tungsten	
Ferro-vanadium	
Non-ferrous Metals	Upto 3%
Copper	
Zinc	
Lead	
Iron ore including processes for agglomeration of ore fines	Upto 3%
Consultancy engineering	No royalty
Glass Industry	
Polished plate glass laboratory glass-ware and silica-ware	Upto 3%
Deep sea fishing	—

LIST I (B)

Illustrative List of Industries where only Foreign Technical Collaboration may be Permitted (but not Foreign Investment)

<i>Industry</i>	<i>Royalty Range</i>
I. Paper, Pulp and Allied Industries	
(i) Special grades of papers such as natural tracing paper, vegetable parchment paper, cigarette paper, carbonising tissues, stencil base tissues, tabulating manila paper, high strength kraft paper like sack kraft, waxing, laminating and impregnation base papers, vulcanised fibre sheets, abrasive body paper, chart paper, indicator paper	Upto 3%
(ii) Tyre-cord and special chemical pulp	
II. Rubber Goods Manufacturing Industry including Tyres and Tubes	
Rubber contraceptives, meteorological balloons, fire fighting hoses, tennis balls, rubber thread used in hosiery automobile tyres and tubes	Upto 3%
III. Chemical Industries	
Alkylamines, rubber chemicals, fluorinated hydro-carbons, carbon tetrachlorides, trichlore-ethylene glycol ethers, propylene oxide	Upto 3%
IV. Asbestos and Carbon Products	
(i) Midget electrodes and other special carbon products	Upto 3%
(ii) Graphite crucibles	Upto 3%
V. Timber-based Industries	
Moulded particle boards	Upto 3%
VI. Electrical Engineering Industries	
(i) Transformers above 1000 KVA	} Upto 3%
(ii) AC motors above 30 HP	
(iii) Fractional horse power motors	
(iv) Variable speed motors	
(v) Power-line carrier equipment	
(vi) Lightning arrestors	
(vii) Selected categories of insulation material for electrical industries	
(viii) Flame-proof lamp fittings	
(ix) Electric lamps—(photo flash pre-focus, infra-red, ultra-violet, mercury vapour, telephone switchboard)	
(x) Lamp components (lead-in wire, filament and fluorescent powder)	
(xi) Controls of refrigerators and air-conditioners	
(xii) Specialised surgical equipments, such as blades, needles, etc.	
(xiii) AC motor starters for motors above 30 HP	
(xiv) Hearing aid	
(xv) Crane control gear	
(xvi) Power capacitors	

- | | |
|---|---------|
| (xvii) CTS and PTS for measuring and protection | Upto 5% |
|---|---------|

VII. Metallurgical Industries

- | | |
|--|-----------|
| (i) SG iron castings
(ii) Alloy iron castings
(iii) Non-ferrous semis not produced in the country at present | } Upto 3% |
|--|-----------|

VIII. Industrial Machinery Industries

- | | |
|---|-----------|
| (i) Coal and ash handling plant
(ii) Printing machinery
(iii) Gears and gear boxes
(iv) Chemical and fertilizers plant
(v) Metallurgical equipment including foundry equipments (plant and machinery for such items as LD convertors, rolling mills, special features of blast furnace for giving improved productivity and cokeoven by-product plants)
(vi) Oxygen and acetylene plant
(vii) Ceramic machinery
(viii) Pulp and paper mill machinery
(ix) Food processing machinery
(x) Accelerated freeze drying plant
(xi) Mineral beneficiation plants
(xii) Specialised equipments for air conditioning and refrigeration and air control equipment such as centrifugal compressors, low temperature freezers, transport refrigeration equipment, electrostatic precipitators, silos, etc.
(xiii) Mining machinery: hydraulic props and electric drills.
(xiv) Any specialised item for industrial machinery other than those particularly excluded <i>vide</i> list of industries where no foreign collaboration (financial or technical) is considered necessary | } Upto 5% |
|---|-----------|

IX. Cutting Tools

- | | |
|------------------------|---------|
| Selected cutting tools | Upto 5% |
|------------------------|---------|

X. Other Miscellaneous Industries

- | | |
|---|---------|
| (i) Improved types of agricultural implements and machinery | Upto 3% |
| (ii) Pesticides application equipment (special types) | Upto 3% |
| (iii) Time-pieces (non-conventional) | Upto 3% |
| (iv) Industrial sewing machines | Upto 5% |
| (v) Gas appliances | Upto 3% |
| (vi) Hair-spring and other types of delicate and complicated springs | Upto 5% |
| (vii) Industrial precision roller chains bigger than 5/8" pitch, simplex, duplex and triplex, bush chains, special rollers chains for mechanical handling, bush slot bank, trolley conveyor chains hollow bearing pen type chains | Upto 5% |

(viii) Special bicycle components, such as multispeed hubs, with trigger and twist control	Upto 3%
(ix) High pressure pipe fittings of specialised type other than malleable iron fittings	Upto 3%
(x) Ship chains and alloy steel chains other than ordinary mild steel welded link chains	Upto 3%
(xi) Sophisticated types of valves and cocks	Upto 5%
(xii) Fishing hooks	Upto 3%
(xiii) Superior quality sanitary fittings	Upto 3%
(xiv) Thermo-setting moulding materials	No royalty
(xv) Fatty alcohols	No royalty
(xvi) Electro-plating chemicals	No royalty
(xvii) Welding fluxes	No royalty
(xviii) Foundry chemicals	No royalty
(xix) Dye-stuffs and intermediates	Upto 3%
(xx) Iron ore pelletization including production of sinter feed	No royalty
(xxi) Alumina	No royalty
(xxii) Safety razor blades and safety razors	Upto 5%
(xxiii) Alloy and special steels including: Cold rolled grain oriented sheets, Special alloy steel, tin-free double reduced or single side-plated tin plates, coloured galvanised sheets, plastic coated sheets, other special items of steel, etc.	Upto 3%
(xxiv) Wire thinner than 19g and special wire	Upto 3%
(xxv) Chemical porcelain	Upto 3%
(xxvi) Welding electrodes (special types)	Upto 3%
(xxvii) Duplicators (special types)	Upto 3%
(xxviii) Machine screws (special types)	Upto 3%
(xxix) Steel mill cranes (class IV duty)	Upto 5%

- Note: (i) This list indicates the fields where foreign investment is not likely to be required for setting up new units. This does not, however, preclude the expansion of existing joint ventures.
- (ii) Foreign investment is also not precluded in any composite scheme of manufacture where the production of any of the above items is envisaged along with other major items for the manufacture of which foreign investment is welcome.

LIST II

List of Industries where no Foreign Collaboration (Financial or Technical) is Considered Necessary

1. Paper, Pulp and Allied Industries

Common grades of printing, writing, packing and wrapping paper and boards e.g., white printing papers, azure; cream laid and woven papers; art paper and board; litho offset paper; drawings and cartridge paper; MG poster; bank and bond paper; airmail paper; cheque paper; typewriting paper; manifold paper; ledger paper; kraft paper; match paper; greaseproof and glassine paper; ordinary MG tissue paper; blotting paper; straw boards; mill boards; grey board; carbon paper; typewriter ribbons; VPI paper.

2. Rubber Goods

Bicycle tyres and tubes; tyre retreading material; rubber and canvas footwear; conveyor belting; industrial and agricultural hoses; automobile rubber components; rubberised fabrics; latex foam; industrial and surgical gloves; medicinal rubber goods such as vaccine and other injectible bottle vials; ice cups and hot water bottles and reclaim rubber.

3. Chemical Industries

Formaldehyde; acetic acid; esters of acetic acid like ethyl acetate; butyle acetate, formic acid; monochloroacetic acid; ethyl chloride; methyl bromide; chloroform; methylene chloride; chlorobenzene plasticisers (phthalate—batch process); oxalic acid; chlorinated paraffins; beer; erthenol; penta erythritol; aniline.

4. Leather and Leather Goods Industries

Glue/technical gelatine; vegetable tanning extracts; pickers; picking bands; leather belting; cotton and hair finished leather; leather footwear; synthetic tanning materials.

5. Rayon and Synthetic Fibres Industries

Viscose filament yarn/staple fibre viscose tyre yarn.

6. Asbestos and Carbon Products

Asbestos cement products; pencils.

7. Timber-based Industries

Tea chest plywood; commercial plywood; matches.

8. Glass Industry

Sheet glass; table and pressed ware; vacuum flasks; enamel-ware; container-ware.

9. Cement and Cement Products

Cement, RCC pipes, prestressed and pre-tension cement products, building bricks and roof tiles.

10. Ceramic Industry

Sanitary-ware; glazed tiles; crockery.

11. Castings

Grey casting; steel casting.

12. Electrical Engineering Industries

Distribution transformers; power transformers 1000 KVA and below; AC motors below 30 HP; electronic components (ferrite, transformer coils, telescopic aerials, ceramic capacitors), cables (except power cables above 11 KV) iron clad switches; winding wires and strips; hospital wares; electric fans; domestic refrigerators; domestic air-conditioners, commercial radio receivers; house service meters; ammeters and volt-meters other than sub-standard; multimeters; storage battery.

13. Industrial Machinery

Sugar machinery; cement machinery; conveyors; LP gas cylinders; coal mining machinery (except hydraulic props and electric drills).

Coal washery plant; building and constructional machinery except specialised items; poultry equipment; pesticides application equipment, (other than special type equipment) milk and dairy machinery except specialised items, cooling towers; tea processing machinery; oil mill machinery; water treatment plant; solvent extraction plant; rice mill machinery of conventional type; weighing machinery except specialised items; cold formed sections and slotted angles; tubular structurals; railway wagons; railway mechanical and signalling equipment; railway points and crossing; steel doors; windows and rolling shutters; wire ropes; (other than bicable ropeways) lifts; welding electrodes (other than special types) bright bars; welded GI steel pipes and tubes; conduit pipes; electric hoist block and chain pulley block; transmission line towers; rail and road bridges; structurals (light, medium and heavy).

14. Machine Tools and Small Tools

Forged hand tools (spanners, pliers, etc.); steel files (except export-oriented); twist drills; general purpose machine tools (simple types).

15. Other Industries

Drums and barrels; collapsible tubes; crown corks; pilfer proof seals and closures; hurricane lanterns; chaff-cutter knives; buckets; domestic utensils and cutlery; agricultural implements and machinery (manual and animal drawn); clocks; time pieces (conventional); franking machines; duplicators (other than special types); oil pressure stoves; belt fasteners; steel belt lacing; spectacle frames; oil pressure lamps; hand sewing and gramophone needles; addressing machines;

Pressure cookers; domestic sewing machines; air rifles; cigarette lighters; bicycle and bicycle parts: ball bearings (only steel balls); leaf springs; zip fasteners; grinding media; coil springs excluding hair and other delicate and complicated springs.

Snap fasteners; toys, bolts, nuts, rivets, dogspikes of all types excluding specialised types of rivets; wood screws other than with special recessed heads; mild steel welded link chains other than ship chains and alloy steel chains; machine screws other than specialised types; pipe fittings other than specialised types; locks; valves and cocks (other than specialised); shoe grindery; builders' hardware; welded wire mesh; wire gauge and netting; oil milling; solvent extraction of oil cakes; soap; synthetic detergents (formulations), fatty acids; textile auxiliaries; paints and allied products.

Note: (1) This list indicates the fields where foreign investment is not likely to be required for setting up new units. This does not, however, preclude the expansion of existing joint ventures.

(2) Foreign investment is also not precluded in any composite scheme of manufacture where the production of any of the above items is envisaged alongwith other major items for the manufacture of which foreign investment is welcome.

SPECIMEN LETTER FOR APPROVAL OF FOREIGN COLLABORATION

Government of India
Ministry of Industry & Civil Supplies
Department of Industrial Development
Secretariat for Industrial Approvals
Foreign Collaboration Unit

Messers.

.....

No. FC:() New Delhi, Dated the

Subject: Application from Messers.....
.....for foreign collaboration
withfor the manufacture of
.....(F.C. Sl. No.....)

Gentlemen,

With reference to the above-mentioned application, Government of India are prepared to approve the terms of collaboration with Messers. for the manufacture of subject to the following conditions in addition to those detailed in the Annexure to this letter.

(i) The foreign collaborator will invest to the extent of Rs. in the total issued capital of Rs. of your company (*i.e.* % of the total issued capital). The total non-resident share-holding in the joint venture should in no case exceed this percentage.

(ii) The foreign collaborator shall be paid a royalty @.....%, subject to Indian taxes, for a period of.....years. The royalty will be calculated on the basis of the net ex-factory sale price of the product exclusive of excise duties, minus the landed cost of the imported components, irrespective of the source of procurement including ocean freight, insurance, custom duties, etc. The payment of royalty at the rate mentioned above will be restricted to..... plus 25% in excess thereof. In case of production in excess of this quantum, prior approval of Government would have to be obtained regarding the terms of payment of royalty in respect of such excess production.

(iii) The foreign collaborator shall be paid a lumpsum of Rs., subject to applicable Indian taxes, for technical know-how, drawings, designs, documentation, erection and commissioning, etc. The lumpsum shall be paid in three instalments as detailed below:-

- (a) 1/3 after the agreement has been taken on record.
- (b) 1/3 at the time of transfer of technical documentation.
- (c) 1/3 after the commencement of commercial production.

(iv) You shall export at least.....% of the annual production of the item to be manufactured under this collaboration for a period of.....years. You shall export the product to be manufactured under this collaboration at least of the value of Rs. in terms of foreign exchange per annum for.....years/over a period of years. For this purpose, the requisite guarantee *i.e.*, legal undertaking/ bank guarantee as may be required

should be furnished according to the detailed instructions issued by the Chief Controller of Imports & Exports (EO Cell) and the Ministry of Commerce (TAEP), who may be contacted in the matter.

2. You are requested to confirm to the Ministry/Department of and also to the Foreign Collaboration Unit, Secretariat for Industrial Approvals, Udyog Bhavan, New Delhi-110011 that the terms of collaboration stipulated above and in the Annexure to this letter are acceptable to you.

3. Ten copies of the collaboration agreement which should be strictly in accordance with the terms as indicated above, as finally executed and signed by both the parties may be furnished to the Ministry/Department of

4. This approval to the terms of collaboration is valid for a period of six months from the date of issue of this letter.

Yours faithfully,

Under Secretary to the Government of India

ANNEXURE

- (i) The Indian Company should be free to sub-license the technical know-how / product design / engineering design under the agreement to another Indian party, should it become necessary. The terms of such sub-licensing will, however, be as mutually agreed to by all the parties concerned including the foreign collaborators and will be subject to the approval of Government.
- (ii) The deputation of technicians either way shall be governed by specific approval to be granted by the Government on application in terms of numbers, period of assistance and training, rate of allowances to be paid, travelling charges and other items of expenses, etc.
- (iii) Import of capital equipment and raw materials would be allowed as per import policy prevailing from time to time.
- (iv) Foreign brand names will not ordinarily be allowed for use on the products for internal sale although there is no objection to their use on products to be exported.
- (v) Exports shall be permitted to all countries except where the foreign collaborator has existing licensing arrangements for manufacture. In the latter case, the countries concerned shall be specified.
- (vi) The duration of the agreement shall be for a period of five years from the date of agreement or five years from the date of commencement of production provided production is not delayed beyond three years, of signing of agreement (*i.e.* a maximum period of eight years from the date of signing of the agreement). Within this period, the Indian Company should develop and set up their own design and research facilities so that continued dependence on foreign collaboration beyond this period will not be necessary.
- (vii) In case the item of manufacture is one which is patented in India, the payment of royalty/lumpsum payment made by the Indian Company to the foreign collaborator for a period of agreement mentioned in condition (vi) above shall also constitute full compensation for the use of the patent rights till the expiry of life of the patent and the Indian Company shall be free to manufacture that item even after the expiry of the collaboration agreement, without making any additional payments. A specific provision in this regard must be incorporated in the collaboration agreement to be entered into between the two parties.
- (viii) In case any consultancy is required to execute the project, this should be obtained from an Indian Consultancy Engg. firm. If foreign consultancy is considered unavoidable, an Indian consultancy firm should nevertheless be the prime consultants.
- (ix) The Indian Company should submit a return about the progress of the undertaking as in the form enclosed* showing the position as on 31st December each year. This return should be submitted by the 31st January of the following year annually till the date of expiry of foreign agreement. The return should be addressed to the following authorities:—
 - (a) The Ministry / Department administratively concerned with the field of collaboration.
 - (b) The Directorate General of Technical Development, Udyog Bhavan, New Delhi-110011 (to be sent in duplicate).
 - (c) The Secretariat for Industrial Approvals (Foreign Collaboration Unit), Ministry of Industry & Civil Supplies, Department of Industrial Development, Udyog Bhavan, New Delhi-110011.
 - (d) Ministry of Finance (Department of Economic Affairs), North Block, New Delhi-110001.
- (x) The agreement shall be subject to Indian laws.

Under Secretary to the Government of India.

*Please see appendix XX.

PRESS NOTE

SIMPLIFIED PROCEDURE FOR THE IMPORT OF DESIGN AND DRAWING FOR MACHINERY MANUFACTURE

New Delhi, 7 December 1973

With a view to reducing the import of capital equipment and facilitating fuller utilisation of fabrication capacity in the machinery manufacturing industry, Government have decided to introduce a special procedure for the import of designs and drawings to facilitate indigenous fabrication of machinery and equipment. Under the new procedure, applications for the import of drawings and designs will be considered subject to the conditions specified below:

- (1) Such imports will be allowed only to those undertakings which are licensed or registered for any of the items covered under 'Industrial Machinery' and 'Machine Tools' in the Schedule to the Industries (Development and Regulation) Act, or for rubber machinery or printing machinery, which are currently non-scheduled items;
- (2) Such imports under the special procedure will be permitted only once in a year to one undertaking; and
- (3) The value of such drawings and designs should not exceed Rs. 5 lakhs.

2. Applications for the import of designs and drawings, which satisfy the above mentioned conditions, should be sent in the prescribed* form (in 6 copies) to the Secretariat for Industrial Approvals in the Department of Industrial Development (Central Receipts and Despatch Section), Udyog Bhavan, New Delhi-110011. Copies of the prescribed form can be obtained from the Entrepreneurial Assistance Unit of the Secretariat for Industrial Approvals, Department of Industrial Development, Udyog Bhavan, New Delhi-110011.

3. It is the intention of Government to give a final decision to applicants within a period of one month from the date of receipt of application.

*Please see appendix XIX.

SIMPLIFIED PROCEDURE FOR THE IMPORT OF DESIGNS AND DRAWINGS FOR FABRICATION CAPACITY IN THE ELECTRICAL INDUSTRY

New Delhi; 25 March 1975

In terms of the Press Note dated 7 December 1973 Government had announced a special procedure for the import of designs and drawings, with a view to reducing the import of capital equipment and facilitating fuller utilisation of fabrication capacity in the machinery manufacturing industry. Government have now decided to extend this special procedure for the import of designs and drawings to the Electrical Industry. Under this procedure applications for the import of designs and drawings required for fabrication in the Electrical Industry will be considered subject to the conditions specified below:

- (i) Such imports will be allowed only to those undertakings which are licensed or registered for any of the items covered under Sub-heading (1) of the heading 5 in the First Schedule to the Industries (Development & Regulation) Act, 1951, *i.e.*, "Equipment for Generation, Transmission and Distribution of Electricity including Transformers."
- (ii) Such imports under special procedure will be permitted only once in a year to one undertaking.
- (iii) The value of such designs and drawings should not exceed Rs. 5 lakhs.

Applications for the import of designs and drawings, which satisfy the above mentioned conditions, should be sent in the prescribed* form (in 6 copies) to the Secretariat for Industrial Approvals in the Ministry of Industry and Civil Supplies (FC Unit), Udyog Bhavan, New Delhi. Copies of the prescribed form can be obtained from the Entrepreneurial Assistance Unit of the Secretariat for Industrial Approvals, Ministry of Industry and Civil Supplies, Udyog Bhavan, New Delhi. It is the intention of Government to give a final decision to applicants within a period of one month from the date of receipt of applications.

*Please see appendix XIX.

FORM OF APPLICATION TO BE SUBMITTED BY UNDERTAKINGS FOR IMPORT OF DESIGNS AND DRAWINGS

(To be submitted with 5 spare copies)

1. Name and address of the applicant/company.

Part 'A'—Line of Manufacture for which the Drawings are required

2. (i) Existing business/item(s) of manufacture and the number and date of Industries (Development and Regulation) Act licence, if any.
- (ii) Is/are the item/items mentioned above being manufactured with foreign collaboration? If so, please give the particulars of each collaboration including the names of collaborators.
- (iii) (a) Has any industrial licence/letter of intent been obtained for the manufacturing programme, if the item is covered by the Industries (Development and Regulation) Act 1951, if so, please quote reference; or
- (b) If registered with the DGTD, please quote reference; or
- (c) Whether the proposed manufacturing programme would be in the small scale sector? If so, please quote registration number.
- (iv) (a) Full justification for which imports of designs and documentation is required.
- (b) Please indicate specific details of the machinery proposed to be fabricated.

- Note: (i) Please enclose copies of industrial licence/letter of intent/registration certificate as applicable.
- (ii) In the case of items falling under industrial machinery and machine tools, please quote the schedule number allowed in the industrial licence.
- (iii) In the case of rubber machinery and printing machinery, please indicate the registration number with the DGTD.

3. Estimated value of annual production.

<i>Product</i>	<i>Quantity</i>	<i>Value</i>	<i>Ex-factory sale price after deducting landed cost of imported components, if any.</i>

4. Location of factory.

Tehsil.....District.....State.....

5. Details of phased manufacturing programme *i.e.*, the import content and indigenous content of raw materials and components which will go into the production.

1st year

2nd year

3rd year

etc. etc.

Part 'B'—Details of Foreign Collaboration

6. Name and address of the Foreign Collaborator(s) with whom the Indian company proposes to collaborate.

7. Terms of foreign collaboration:

(i) Design and documentation/know-how fees.

(ii) If payment is by instalments, details thereof may be mentioned.

8. What are the specific services to be rendered by the foreign collaborator in pursuance of the agreement?

Part 'C'—Miscellaneous Information

9. Please indicate if the foreign collaborator is agreeable that the technical know-how/product design/engineering design can also be made available to other Indian parties should it become necessary, on terms and conditions as mutually agreeable to all the parties concerned, including the foreign collaborator, and subject to the approval of the Government.

10. What steps does the applicant propose to take for research and development in respect of the technology involved? Give brief details.

Signature of the Applicant

ANNUAL RETURN FROM UNDERTAKINGS WITH FOREIGN COLLABORATION

1. Name of the Indian Company.
2. Name of the foreign collaborator with the name of the country.
3. Names of products being manufactured by the Company under foreign collaboration/as subsidiary of foreign firm.
 - (i)
 - (ii)
 - (iii)
 - (iv)
4. Name of the Industrial Unit and its location (District and State).
5. Nature of agreement—financial collaboration/financial-cum-technical/technical.
6. Capital investment
 - (a) Total equity investment.
 - (b) Amount of foreign equity investment.
 - (c) Percentage of foreign capital to total capital.
7. Total licensed capacity/approved capacity (for each item mentioned in column 3 above).
8. Total capacity actually installed
(for each item mentioned in column 3 above)
9. Annual production of the above from the beginning up-to-date.

	<i>Item</i>	<i>Quantity</i>	<i>Value</i>
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10. Annual requirement of raw material (for each item) imported/indigenous.

	<i>Item</i>	<i>Quantity</i>	<i>Value</i>
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11. Royalty, if any paid to the foreign collaborator.
 - (a) Rate of royalty approved and basis of calculation.
 - (i) Internal sales
 - (ii) Exports
 - (b) Royalty paid so far year-wise.
12. Lumpsum payments to the foreign collaborator including free shares, if any.
 - (a) Total payments envisaged in the agreement.
 - (i) Technical know-how

- (ii) Engineering fee
- (iii) Amount of free shares
- (iv) Any other payments (to be specified)

(b) Payments already made year-wise.

13. Dividends

Dividends already remitted/due for remittance on the foreign share holding, year-wise.

14. Actual exports made by the Company so far as this collaboration is concerned (year-wise).

	<i>Item</i>	<i>Quantity</i>	<i>Value</i>
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15. Technicians

(i) Number of foreigners employed as on 1 January

(a) Technicians.

(b) Others.

(ii) Number of Indians trained abroad (year-wise)

Duration

16. Reference number and date of Government's approval of the initial agreement.

17. Period of agreement.

18. Date of expiry of the initial agreement.

19. Renewal, if any.

(a) Period for which renewal accorded.

(b) Reasons for according renewal.

(c) Date on which the agreement will finally expire.

20. Arrangements for research/development made during/after the expiry of the agreement.

21. Remarks

LIST OF INDUSTRIALLY BACKWARD DISTRICTS/AREAS SELECTED TO QUALIFY FOR THE CENTRAL SUBSIDY SCHEME (AS ON 21.7.1975)

<i>District(s)/Area(s) Selected</i>			
<i>Sl. No.</i>	<i>State</i>	<i>Upto 10.7.72 under the original form of the scheme.</i>	<i>After 10.7.72 under the extended form of the scheme.</i>
1	2	3	4
1.	Andhra Pradesh		
	One complete district and 5 Areas.		Srikakulam (complete district)
	<i>Area No. I</i> from Rayalseema Region comprising of 13 Blocks viz.	Chandragiri	Bangarupalem, Chittoor, Kalahasthi, Pulicherla & Puttur.
		Cuddapah, Kamalapuram, Kodur, Prodattur, Pulivendla, Rajampet, Sidhout	from Chittoor District.
	<i>Area No. II</i> from Rayalseema Region comprising of 9 Blocks viz.	Gooty, Singanamala, Tadipatri and Kudair	from Cuddapah District.
		Dhone, Kurnool,	from Anantapur District.
	<i>Area No. III</i> from Telengana Region comprising of 14 Blocks, viz.	Amangal, Kalwakurthy	Banganapalli, Giddalur, Nandyal.
		Makrekal, Mungadi, Nalgonda, Suryapet.	from Kurnool District.
	<i>Area No. IV</i> from Telengana Region comprising of 14 Blocks viz.	Khammam, Tirumalaipalem,	Jedcherla, Mehbubnagar, Shadnagar.
		Hanamkonda, Mahbuba - bad,	from Mehbubnagar District.
			Deverakonda, Kodad, Kuzurunagar, Mirgalaguda, Peddavora.
			from Nalgonda District.
			Aswaraopeta, Bhadrachalam, Burgampad, Kallur, Kothagudam, Yolandu.
			Ghanapur, Jangaon, Mulug.
			from Khammam District.
			from Warrangal District.

Area No. V
from Telengana
Region comprising
of 15 Blocks viz.

Hazurabad, Karimnagar,
Peddapalli,
Sultanabad, Siddipet,

Manthani,
Sircilla,

from Karimnagar
District.

Medak, Narzapur,
Patancheruvu,
Zaheerabad, Demakonda,
Kamareddy, Nizamabad,
Yedpalli.

from Medak
District.
from Nizamabad
District.

(Municipal towns falling within the above-mentioned areas would also be entitled to the Central Subsidy).

2. Assam 6	Goalpara, Mikir Hills	Cachar, Kamrup, Nowgong, New Lakhimpur.
3. Bihar 6	Bhagalpur Darbhanga**	Champaran**, Palamau, Saharsa, Santhal Parganas.
4. Gujrat 3	Panchmahals,	Broach, Surendarnagar.
5. Haryana 3	1. Mohindergarh (Re-organised) comprising (a) Mohindergarh Sub-division (a) Dadri Sub-division and (Block No. 1 to 5 from Hissar Distt. and 6-8 from Jind Distt.)	(b) Rewari Sub-division. 2. Bhiwani (comprising) (b) Bhiwani Sub-division, and 3. One Area comprising of 8 Blocks from Hissar Distt. and Jind Distt. viz. 1. Hissar Block No. I (Hissar Tehsil) 2. Barwala Block (Hissar Tehsil) 3. Hansi Block (Hansi Tehsil) 4. Bahuna Block (Fatehabad Tehsil) 5. Tohana Block (Tohana Tehsil) 6. Jind Block (Jind Tehsil) 7. Julana Block 8. Uchana Block (Narwana Tehsil)
6. Himachal Pradesh 6	Kangra**	Chamba, Kulu, Sirmur, Solan (Proposal for 6th Distt. under consideration).
7. Jammu & Kashmir 6	Jammu, Srinagar	Anantnag, Baramula, Doda, Poonch.
8. Karnataka 3	Raichur,	Dharwar, Mysore.
9. Kerala 3	Alleppey,	Cannanore, Malapuram.
10. Madhya Pradesh 6 Areas comprising of 65 Blocks viz: <i>Eastern Region</i> 12 Blocks viz.	Bilha, Champa, Korba, Kota, Masturi, Paloda.	from Datia District.

	Abhanpur, Bhatapara, Dharsiwa, Rajim, Sigma, Tilda	from Raipur District.
<i>Western Region</i> 10 Blocks viz.	Dewas, Tonk Khurd	from Dewas District.
	Gulna, Shajapur Shujalpur. Biaora, Panchor (Sarangpur) Chachaura, Guna, Raghogarh.	from Shajapur District. from Rajgarh District. from Guna District.
<i>Western Region (II)</i> 12 Blocks viz.		
	Badnawar, Dhar, Nalcha. Meghnagar, Potalwad. Barwala, Maheshwar.	from Dhar District. from Jhabua District. from Khargone District.
	Mandsaur, Malhargarh, Neemuch. Jaura, Ratlam.	from Mandsaur District. from Ratlam District.
<i>Northern Region</i> 9 Blocks viz.		
	Bhind, Gohad, Mehgaon. Datia, Seendha. Jaura, Morena.	from Bhind District. from Datia District. from Morena District.
	Karera, Shivpuri.	from Shivpuri District.
<i>Central Region</i> 11 Blocks viz.		
	Chattarpur	from Chattarpur District.
	Banda (Binaika) Bina-Itawa. Khuri, Rahatgarh, Sagar, Shahgarh, (Amarman) Baldeogarh, Tikamgarh. Gyaraspur, Vidisha.	from Sagar District. from Tikamgarh District. from Vidisha District.
<i>North Eastern Region</i> 11 Blocks viz.		
	Raipur (Garh) Rewa Ambikapur, Baikunthpur, Mahendragarh, Sonhat, Surajpur. Doosar, Majhauili, Sidhi, Waidhan.	from Rewa District. from Surguja District. from Sidhi District.
11. Maharashtra 3	Ratnagiri	Aurangabad, Chandrapur.

12. Manipur 5	All the Five- districts viz. Manipur North/ West/South/ Central/East.		
13. Nagaland 3	Kohima, Mokokchung.	Tuensang.	
14. Meghalaya 2	United Khasi & Jaintia Hills**, Garo Hills.		
15. Orissa 6	Kalahand, Mayurbhanj,	Bolangir, Dhankanal, Keonjhar, Koraput.	
16. Punjab 3	Hoshiarpur.	Bhatinda**, Sangrur.	
17. Rajasthan 6	Alwar, Jodhpur.	Bhalwara, Churu, Nagaur, Udaipur.	
18. Sikkim 4		All the four districts of Gangtok, Gyalshing, Mangan & Namchi.	
19. Tamil Nadu 3 Areas comprising of 27 talukas viz.	Madukulathur, Parmakudi, Ramanathapuram, Sivaganga, Thiru- vadani, Thirupathur.	Aruppukottai, Sattur, Sriviliputtur	from Ramanathapuram District.
		Dharmapuru, Harur, Hosur, Krishnagiri, Uthangarai.	from Dharmapuri District.
	Melur	Dindigul, Nilakothai, Thirumangalam, Usilampatti, Vedasandur.	from Madurai District.
		Tirupattur, Vaniyambadi, Vellore, Walajapet.	from North Arcot District.
	Alangudi, Kulathur, Thirumayam		from Trichirapalli District.
20. Tripura 3	Tripura West/ South/North.		
21. Uttar Pradesh 6	Ballia, Jhansi.	Almora, Basti, Faiza- bad, Rae Bareilly.	
22. West Bengal 3	Purulia,	Midnapur, Nadia.	

UNION TERRITORIES

1. Andaman & Nicobar Islands.

2. Arunachal Pradesh.

3. Dadra & Nagar Haveli.

4. Laccadive, Minicoy &
Aminidivi Islands.

5. Mizoram.

6. Goa, Daman & Diu.

7. Pondicherry.

Entire Territory.

Entire district excluding the
area within the municipal limits of
Territory's capital.

Total = 102.

****Represents districts as they existed prior to their recent re-organisation.**

N.B. In case of districts/areas selected under the Original Scheme the industrial units taking effective steps on or after 1.10.1970 would be eligible for investment subsidy, and

in respect of the districts/areas selected under the extended form of the scheme those industrial units would be eligible for subsidy which take effective steps on or after 26.8.1971.

LIST OF INDUSTRIALLY BACKWARD DISTRICTS SELECTED TO QUALIFY FOR CONCESSIONAL FINANCE FROM THE FINANCIAL INSTITUTIONS (AS ON 3.1.1976)

<i>Sl. No.</i>	<i>State</i>	<i>Districts</i>
1.	Andhra Pradesh 14	Anantapur, Chittoor, Cuddapah, Karimnagar, Khammam, Kurnool, Mehbubnagar, Madak, Nalgonda, Nellore, Nizamabad, Ongole, Srikakulam and Warangal.
2.	Assam 7	Cachar, Goalpara, Kamrup, Mikir Hills, North Cachar Hills, Nowgong and New Lakhimpur District.
3.	Bihar 16	Bhagalpur, Champaran*, Darbhanga*, Muzaffarpur*, Palamau, Purnea, Saharsa, Santhal Parganas, Saran*, and new districts of Nalanda, Aurangabad, Nawadah, Gaya, Bhojpur, Begusarai and Monghyr.
4.	Gujarat 10	Amreli, Banaskantha, Bhavnagar, Broach, Junagad, Kutch, Mehsana, Panchmahal, Sabarkantha and Surendranagar.
5.	Haryana 4	Bhiwani, Hissar**, Jind and Mohindergarh**.
6.	Himachal Pradesh 7	Chamba, Kangra*, Kinnaur, Kulu, Lahaul and Spiti, Solan and Sirmur.
7.	Jammu & Kashmir 10	Anantnag, Baramula, Doda, Jammu, Kathua, Ladak, Poonch, Rajori, Srinagar and Udhampur.
8.	Kerala 5	Alleppey, Cannanore, Malapuram, Trichur and Trivandrum.
9.	Karnataka 11	Belgaum, Bidar, Bijapur, Dharwar, Gulbarga, Hasan, Mysore, North Kanara, Raichur, South Kanara and Tumkur.
10.	Madhya Pradesh 36	Balaghat, Bastar, Betul, Bilaspur, Bhind, Chhatarpur, Chindwara, Damoh, Datia, Dhar, Dewas, Guna, Hoshangabad, Jhabua, Khargone, Mandla, Mandsaur, Morena, Narsimhapur, Panna, Raigarh, Raipur, Rajnandgaon, Rajgarh, Raisen, Ratlam, Rewa, Sagar, Seoni, Shajapur, Shivpuri, Sidhi, Surguja, Tikamgarh, Vidisha and New Sehore district.
11.	Maharashtra 13	Aurangabad, Bhandara, Bhir, Buldhana, Chanda, Colaba, Dhulia, Jalgaon, Nanded, Osmanabad, Parbhani, Ratnagiri and Yeotmal.
12.	Manipur 5	All the 5 districts.
13.	Meghalaya 2	Garo Hills and United Khasi & Jaintia* Hills.
14.	Nagaland 3	Kohima, Mokokechung and Tuensang.

15. Orissa 8	Balasore, Bolangir, Dhenkanal, Kalahandi, Keonjhar, Koraput, Mayurbhanj and Phulbani.
16. Punjab 5	Bhatinda*, Ferozpur, Gurdaspur, Hoshiarpur and Sangrur.
17. Rajasthan 16	Alwar, Banswara, Barmer, Bhilwara, Churu, Dungarpur, Jaisalmer, Jalore, Jhunjhunu, Jhalawar, Jodhpur, Nagaur, Sikar, Sirohi, Tonk and Udaipur.
18. Sikkim 4	All the 4 Districts of Gangtok, Mangaon, Gyalshing and Namchi.
19. Tamil Nadu 9	Dharmapuri, Kanyakumari, Madurai, North Arcot, Ramanathapuram, South Arcot, Thanjavur, Tiruchirapalli and New Pudukkottai Districts.
20. Tripura 3	All the 3 Districts.
21. Uttar Pradesh 38	Almora, Azamgarh, Badaun, Bahraich, Ballia, Banda, Barabanki, Basti, Bulandshahr, Chamoli, Deoria, Etah, Etawah, Faizabad, Farrukhabad, Fatehpur, Garhwal, Ghazipur, Gonda, Hamirpur, Hardoi, Jalaun, Jaunpur, Jhansi, Mainpuri, Mathura, Moradabad, Pilibhit, Pithoragarh, Pratapgarh, Rai Bareilly, Rampur, Shahjahanpur, Sitapur, Sultanpur, Tehri Garhwal, Unnao and Uttar Kashi.
22. West Bengal 13	Bankura, Birbhum, Burdwan, Cooch-Behar, Darjeeling, Hoogly, Jalpaiguri, Malda, Midnapur, Murshidabad, Nadia, Purulia and West Dinajpur.
23. Andaman & Nicobar 1	Entire Area.
24. Arunachal Pradesh 1	Entire Area.
25. Dadra & Nagar Haveli 1	Entire Area.
26. Goa, Daman & Diu 1	Entire Area.
27. Lakshadweep 1	Entire Area.
28. Mizoram 1	Entire Area.
29. Pondicherry 1	Entire Area.

Total: 246

*District as it existed prior to its recent re-organisation.

**District as re-organised recently.

CONCESSIONAL FINANCE BY INDUSTRIAL DEVELOPMENT BANK OF INDIA BOMBAY

Assistance on Concessional Terms to Industrial Projects in Backward Areas

1. IDBI has recently reviewed its concessional direct assistance schemes. It has decided to extend concessional rupee loan assistance upto Rs. 2 crores and underwriting assistance upto Rs. 1 crore, in participation with other term financing institutions (IFCI and ICICI) to new concerns setting up projects in specified backward areas, *irrespective of their product cost*. The assistance in excess of the above ceiling would generally be extended on normal terms, though exceptions may be made in special circumstances on the merits of each case.

2. Concessional finance for expansion/diversification projects in identified backward districts undertaken by existing concerns would be considered on selective basis, keeping in view the profitability potential of the existing and proposed new projects, location of new projects and other related factors.

3. Concessional loans will carry interest at $9\frac{1}{2}$ per cent, as against the normal lending rate of 11 per cent per annum. The rate of underwriting commission in respect of concessional underwriting would be $1\frac{1}{4}$ per cent, as against the normal rate of $2\frac{1}{2}$ per cent.

4. Concessional financial assistance, was hitherto available generally to new projects involving capital cost upto Rs. 3 crores and to expansion/diversification schemes of existing units with total investment (*i.e.*, net fixed assets plus net working capital of the existing unit and cost of expansion project together) upto Rs. 3 crores. Under the present liberalisation, new projects which involve capital cost of more than Rs. 3 crores would also get the benefit of concessional assistance upto Rs. 2 crores for loans and Rs. 1 crore for underwriting.

5. The IDBI also extends concessional refinance assistance at 6 per cent in respect of all eligible loans of SFC, and banks upto Rs. 30 lakhs to small and medium sized projects in the specified backward areas, provided the paid-up capital and reserve of the assisted industrial concerns do not exceed Rs. 1 crore and the primary lending institution does not charge more than $9\frac{1}{2}$ per cent.

CONCESSIONAL FINANCE BY INDUSTRIAL FINANCE CORPORATION OF INDIA NEW DELHI

The Industrial Finance Corporation of India (IFCI), in supersession of its earlier announcements made in July 1970 and January 1972, has decided to liberalise and enlarge the scope of the scheme of financial assistance on concessional terms to industrial projects in such areas. The scheme would now cover all industrial projects—new, expansion or rehabilitation in the corporate as well as cooperative sectors, *irrespective of their capital cost*. The principal features of the revised scheme of concessional finance for units in identified under-developed districts/areas would be as under—

1. Location

All industrial projects located/to be located in the districts in the various States or Union Territories selected for such assistance by the Central Government from time to time would be eligible for assistance on concessional terms.

2. Scope of the Scheme

Concessional finance would be extended to all projects—new and expansion both in the corporate (limited companies) as well as cooperative sectors. Concessional terms would also be made applicable to assistance granted by IFCI by way of rehabilitation finance to units located in notified under-developed districts on the same basis as applicable to new and expansion projects.

3. Ceiling on Assistance

The overall ceiling in respect of rupee loans on concessional terms from IFCI individually, unless other institutions also participate and extend concessional finance upto Rs. 2.00 crores on a prorata basis, would be Rs. 1.00 crore. The sum of Rs. 1.00 crore would, however, include outstanding rupee assistance, if any, already granted on concessional terms. Underwriting assistance from the term financing institutions including IFCI would be made available at concessional terms upto a ceiling of Rs. 1.00 crore in the aggregate, irrespective of the cost of the project.

4. Terms

(i) *Rate of Interest*

As against the normal current rate of interest at 12 per cent (with a rebate of 1 per cent for punctual payments of instalments of interest and principal) a lower rate of interest *i.e.*, 10.5 per cent (with a rebate of 1 per cent) would be charged on loans to eligible industrial projects in backward areas.

(ii) *Period of Repayment of Loans*

IFCI's normal practice is to allow initial moratorium upto 3 years to an assisted concern before the repayment of the principal amount of the loan commences. In the case of undertakings in the under-developed areas, this period would be extended upto five years from the date of first disbursement of the loan, on a case to case basis, having regard to the projections of profitability and ways and means position of a concern. Likewise, against the normal period of 10 to 12 years allowed for repayment of loans, the period in the case of projects coming up in under-developed areas may be extended upto 15/18 years on the merits of each case having regard to the concern's profitability, potential and cash flow position.

(iii) *Promoter's Contribution and Equity: Debt Ratio*

A lower contribution than the usual by promoters to the total project cost and somewhat liberal equity; debt ratio would be considered on the merits of each case having regard to the financial status and standing of the promoters, gestation period of a particular project, its profitability potential and other relevant factors.

(iv) *Participation in Equity and Preference Capital*

Depending on the merits of each case, IFCI would be prepared, to consider participation by way of underwriting or otherwise in the share capital of an industrial concern located in under-developed areas to a greater extent as compared to projects located elsewhere.

(v) *Reduction in Other Charges*

50 percent reduction would be made in IFCI's normal charges in respect of underwriting commission commitment charge, non-refundable examination fee for processing of applications and legal charges.

CONCESSIONAL FINANCE BY INDUSTRIAL CREDIT AND INVESTMENT CORPORATION OF INDIA LTD

Concessional Terms for Assistance Provided by ICICI in Backward Regions

1. Rupee loan assistance to new concerns for projects in specified backward districts will be made available at a concessional rate of interest of $9\frac{1}{2}$ per cent and commitment charge of $\frac{1}{2}$ per cent, upto a ceiling of Rs. 2 crore of the total term loans provided by the IDBI, IFCI and ICICI, irrespective of the cost of project. The concessional rate of interest for foreign currency loans (within the limit of Rs. 2 crore) is $9\frac{1}{2}$ per cent. Loan assistance above an aggregate of Rs. 2 crore will be made available at normal rates.
2. Underwriting assistance to new concerns for projects in specified backward districts will be made available on an underwriting commission at half the normal rate upto a ceiling of Rs. 1 crore of the total underwriting assistance provided by institutions, irrespective of the cost of project. Underwriting assistance above an aggregate of Rs. 1 crore will be made available on normal terms.
3. The distribution of the loan and underwriting assistance on concessional terms amongst institutions would be made within the above limits on a case to case basis.
4. Relaxation regarding debt:equity ratio, initial moratorium and repayment period for projects in specified backward districts would be considered on a case to case basis.
5. Concessional finance for projects in specified backward districts to be set up by existing concerns by way of expansion / diversification will be considered by the institutions on selective basis.

MINISTRIES AND TECHNICAL AUTHORITIES FOR DIFFERENT INDUSTRIES

1. Ministry of Steel and Mines
(Department of Steel)

Concerned Technical Authority:
Technical Wing, Department of Steel
(For registration: Iron and Steel Controller)

- (1) Iron and steel metal; ingots/billets
- (2) Pig iron/sponge iron
- (3) Ferro alloys
- (4) Tool alloys and special steels
- (5) Other products of iron and steel such as—
 - i) Steel re-rolled products including wire rods
 - ii) Hot rolled/cold rolled steel strips, skelp and box strapping
 - iii) Steel wires
 - iv) Steel sheets/plates
 - v) Tin plates

2. Ministry of Steel and Mines
(Department of Mines)

Concerned Technical Authority:
DGTD

- (1) Non-ferrous metals and alloys
- (2) Semi-manufactures and manufactures

2A. Ministry of Energy
Department of Coal

Concerned Technical Authority:
(i) DGTD
(ii) Coal Controller

- (1) Coal, lignite, coke and their derivatives

3. Ministry of Petroleum and Chemicals
(Department of Petroleum)

Concerned Technical Authority:
DGTD

- (1) Mineral oil (crude oil), motor and aviation spirit, diesel oil, kerosene oil, fuel oil, diverse hydro-carbon oils and their blends including synthetic fuels, lubricating oils and the like.
- (2) Fuel gases—(coal gas, natural gas and the like)

4. Ministry of Chemicals and Fertilizers

Concerned Technical Authority:
DGTD
(For drugs DGHS is also concerned)

- (1) Plastic moulded goods
- (2) Inorganic fertilisers
- (3) Organic fertilisers
- (4) Mixed fertilisers
- (5) Inorganic heavy chemicals
- (6) Organic heavy chemicals
- (7) Fine chemicals including photographic chemicals
- (8) Plastics
- (9) Synthetic rubbers
- (10) Man-made fibres including regenerate cellulose-rayon, nylon and the like
- (11) Coke oven by-products
- (12) Coal tar distillation products like naphthalene, anthracene and the like

5. Ministry of Industry
and Civil Supplies
Department of Heavy Industry;
Concerned Technical Authority:

DGTD

Textile Commissioner

Jute Commissioner
DGTD

- (13) Insecticides, fungicides, weedicides and the like
- (14) Dye-stuffs
- (16) Drugs and pharmaceuticals
- (16) Alcohol
- (17) Miscellaneous chemicals excluding industrial gases

- (1) Iron and steel structurals
- (2) Steel pipes and tubes
- (3) Bright-bars
- (4) Certain products of iron and steel, *e.g.*, rolls, shots of grits, etc.
- (5) Boilers and steam generating plants
- (6) Steam engines and turbines
- (7) Automotive and marine diesel engines
- (8) Equipment for generation, transmission and distribution of electricity including transformers and switchgear, etc.
- (9) Electrical furnaces
- (10) Ships and other vessels drawn by power
- (11) Railway locomotives
- (12) Railway rolling stock
- (13) Automobiles (motor cars, buses, trucks, motor-cycles, scooters and the like) including
 - (a) Automobile ancillaries
 - (b) Garage equipment
- (14) Others, such as fork lift trucks and the like
- (15) Textile machinery (such as spinning frames, carding machines, power looms and the like) including textile accessories
- (16) Jute machinery
- (17) Rayon machinery
- (18) Sugar machinery
- (19) Tea machinery
- (20) Mining machinery
- (21) Metallurgical machinery
- (22) Cement machinery
- (23) Chemical machinery
- (24) Pharmaceuticals machinery
- (25) Paper machinery
- (26) Printing machinery
- (27) Rubber machinery
- (28) Ceramic machinery
- (29) Food processing equipment
- (30) Tyre tube and rubber machinery
- (31) Tobacco and cigarettes machinery
- (32) Biscuit machinery
- (33) Dairy machinery
- (34) Industrial laundry equipment
- (35) Size reduction equipment—crushers, ball mills and the like
- (36) Conveying equipment—bucket elevators, skip hoists, cranes, derricks and the like
- (37) Mixers and reactors—kneading mills, turbo mixers and the like

- (38) Size separation units—screens, classifiers and the like
- (39) Filtration equipment—filter presses, rotary filters and the like
- (40) Centrifugal machines
- (41) Evaporators
- (42) Distillation equipment
- (43) Crystallisers
- (44) Driers
- (45) Power driven pumps
- (46) Fire fighting equipment and appliances including fire engines
- (47) Grinding wheels and abrasives
- (48) Machine tools
- (49) Agricultural tractors, power tillers, harvesting combines and other agricultural machinery, crawler tractors, bulldozers, dumpers, scrapers, loaders, shovels, drag lines, bucket wheel excavators, road rollers and other earth-moving and construction equipment.
- (50) Iron and steel castings and forgings

9. Ministry of Industry and Civil Supplies
(Department of Industrial Development)

Concerned Technical Authority:

DGTD

- (1) Soaps and detergents
- (2) Certain products of iron and steel other than those under Department of Steel, such as drums and barrels, tin containers, bolts and nuts, etc.
- (3) Electrical motors
- (4) Electrical fans
- (5) Electrical lamps
- (6) Electrical cables and wires
- (7) X-ray equipment
- (8) Household appliances such as electric irons, heaters and the like
- (9) Storage batteries
- (10) Dry cells
- (11) Teleprinters
- (12) Aircrafts—gliders and parts
- (13) Air and gas compressors and vacuum pipes (excluding electrical furnaces)
- (14) Refrigeration plants for industrial use
- (15) Fire extinguishers (other than fire fighting equipment)
- (16) Ball, roller and tapered bearings
- (17) Speed reduction units
- (18) Hand tools, small tools and the like
- (19) Razor blades
- (20) Typewriters
- (21) Calculating machines
- (22) Air conditioners and refrigerators
- (23) Vacuum cleaners
- (24) Sewing and knitting machines
- (25) Surgical instruments—sterilisers, incubators and the like
- (26) Water meters, steam meters, electricity meters and the like
- (27) Indicating, recording and regulating devices for preessure, temperature, rate of flow, weights, levels and the like

- (28) Weighing machines
- (29) Scientific instruments
- (30) Mathematical, surveying and drawing instruments
- (31) Synthetic resins
- (32) Paints, varnishes and enamels
- (33) Explosives including gun powder and safety fuses
- (34) Textile auxiliaries
- (35) Sizing materials including starch
- (36) Industrial gases
- (37) Cinema film
- (38) Photographic amateur film
- (39) Photographic printing paper
- (40) Paper—writing, printing and wrapping
- (41) Newsprint
- (42) Paper board and straw board
- (43) Paper for packaging (corrugated paper, kraft paper, bags, paper containers and the like)
- (44) Pulp—wood pulp, mechanical, chemical, including dissolving pulp
- (45) Other products of fermentation industries
- (46) Canned fruits and fruit products
- (47) Milk foods
- (48) Malted foods
- (49) Flour
- (50) Other processed foods
- (51) Vegetable oil, including solvent extracted oils
- (52) Glycerine
- (53) Cosmetics
- (54) Perfumery
- (55) Toilet preparations
- (56) Tyres and tubes
- (57) Surgical and medicinal products including prophylactics
- (58) Footwear
- (59) Other rubber goods
- (60) Leather, leather goods and pickers
- (61) Glue and gelatin
- (62) Hollow ware
- (63) Sheet and plate glass
- (64) Optical glass
- (65) Glass wool
- (66) Laboratory ware
- (67) Miscellaneous ware
- (68) Fire bricks
- (69) Refractories
- (70) Furnace lining bricks—acidic, basic and neutral
- (71) China ware and pottery
- (72) Sanitary ware
- (73) Insulators
- (74) Tiles
- (75) Portland cement
- (76) Asbestos cement
- (77) Insulating boards
- (78) Gypsum boards, wall boards and the like
- (79) Plywood

- (80) Hardboard, including fibre-board, chip-board and the like
- (81) Matches
- (82) Miscellaneous (furniture components, bobbings, shuttles and the like)
- (83) Arms and ammunition
- (84) Cigarettes

7. Department of Electronics

Concerned Technical Authority:

- (i) DGTD
- (ii) Department of Electronics

- (1) Electronic components and equipment
- (2) Telephones
- (3) Telegraph equipment
- (4) Wireless communication apparatus
- (5) Radio receivers, including amplifying and public address equipment
- (6) Television sets

8. Ministry of Agriculture

(Department of Food)

Concerned Technical Authority:

Chief Director of Sugar and Vanaspati,
Department of Food

- (1) Sugar
- (2) Vanaspati

9. Ministry of Commerce

Concerned Technical Authority:

- (i) Textile Commissioner for items (a), (c), (d) and (e); and
- (ii) Jute Commissioner for item (b)

- (1) Textiles (including those dyed, printed or otherwise processed):
 - (a) made wholly or in part of cotton, including cotton yarn, hosiery and rope;
 - (b) made wholly or in part of jute, including jute, twine and rope;
 - (c) made wholly or in part of wool, including wool tops, woollen yarn, hosiery, carpets and druggets;
 - (d) made wholly or in part of silk, including silk yarn and hosiery;
 - (e) made wholly or in part of synthetic, artificial (man-made) fibres, including yarn and hosiery of such fibres.

Note: Ministry of Commerce is also concerned with the Santa Cruz Electronic Export Processing Zone and Kandla Free Trade Zone.

FORM 'E (CG)'

IMPORT LICENCE APPLICATION FOR CAPITAL
GOODS AND HEAVY ELECTRICAL PLANT

(Four copies to be submitted)

PART I

Note

1. Applicants are advised to read the Licensing Instructions for the current period as mentioned in Chapter VI of Import Trade Control Hand Book of Rules & Procedures, before filling up the application form. The application should be legible and complete in all respects to avoid correspondence/delay and rejection.
2. The application should be signed by the authorised representative of the company.
3. Documentary evidence and supporting documents as asked for and applicable must accompany this application.

1. Particulars of Applicant

- 1.1 Name
- 1.2 Registered address
- 1.3 Postal address for correspondence
- 1.4 Sponsoring authority
- 1.5 Administrative ministry

2. Nature of Concern

- 2.1 Proprietary/Partnership/private Ltd./public Ltd.
- 2.2 Whether the undertaking is registered under the MRTP Act?
- 2.3 In case of limited companies, details of capital structures
 - (i) Capital structure
 - (ii) Authorised, issued and subscribed capital
 - (iii) Foreign shareholding, if any, and percentage thereof with full particulars
- 2.4 Names and addresses of the proprietors/partners/directors

3. Particulars of the Industrial Unit

- 3.1 Name and location of the unit
- 3.2 Whether an Industrial Licence or a Letter of Intent has been issued under the Industries (Development and Regulation) Act 1951

- 3.3 If exempt from licensing, furnish details of Registration number and date with State Director of Industries/DGTD/Textile Commissioner/Jute Commissioner/Iron & Steel Controller/other Sponsoring Authority
- 3.4 If the applicant is a small scale unit, whether it will continue to remain so after the proposed import
- 3.5 Whether approval/licence granted by the Government and/or the foreign collaboration approval contain any condition of export? If so, furnish details
- 3.6 Whether foreign collaboration, financial and/or technical is involved and, if so, whether it has been approved.
- 3.7 Manufacturing capacity per annum

<i>Items of manufacture</i>	<i>Licensed capacity (existing)</i>	<i>Licensed capacity (approved)</i>	<i>Capacity covered by the CG application on maximum utilisation</i>

- 3.8 Whether the articles proposed to be manufactured are being imported? If so, furnish if possible the average value of imports (c.i.f.)
- 3.9 Whether the articles proposed to be manufactured can be exported? If so, whether the applicant can undertake an export obligation and the extent of such obligation in terms of the percentage and value of production

4. Investment

- | | | | |
|-----|---|-----------------|-----------------|
| 4.1 | Total investment (in land and building and machinery) | <i>Existing</i> | <i>Proposed</i> |
| | Land and building | | |
| | Machinery | | |
| | Total | | |
- 4.2 Value of imported plant and equipment
- | | |
|----------|--|
| Existing | |
| Proposed | |
| Total | |
- 4.3 Does the value of equipment proposed to be imported exceed the estimated value of imported equipment as indicated in the application for Letter of Intent/Industrial Licence?
- 4.4 If the answer to 4.3 is in the affirmative, indicate the percentage and extent of increase and reasons therefor.

5. Requirements of Imported Raw Materials/Components

5.1 Requirement of imported raw materials per annum for the capacity covered by this application

<i>Item</i>	<i>Quantity</i>	<i>Estimated value (CIF) Total Rs.</i>

5.2 Requirements of imported components per annum for 5 years

<i>Item</i>	<i>Quantity</i>	<i>Value (CIF)</i>
1st Year		
2nd Year		
3rd Year		
4th Year		
5th Year		

6. Purpose of Import

6.1 Whether the capital goods applied for are for the purpose of

- (i) New undertaking
- (ii) New article/diversification
- (iii) Substantial expansion
- (iv) Balancing
- (v) Replacement
- (vi) Modernisation
- (vii) Testing
- (viii) Quality control
- (ix) Prototype for manufacture
- (x) Research and development

6.2 If the import is for balancing/replacement/modernisation whether it will result in an increase of licensed/approved capacity.

6.3 In case of import of machines for replacement

- (i) Date of installation of original machines
- (ii) Arrangements for the disposal of old machines.

7. Manner of Financing of Import

- 7.1 Foreign equity. If so, furnish full details of financial participation approved, amount utilised and the balance available
- 7.2 Investment by non-resident Indian nationals
- 7.3 Suppliers credit
- 7.4 Private foreign exchange loan
- 7.5 Borrowing from IFC/ICICI/State Financial Corporations

8. Details of Capital Goods Applied for

- ### 8.1 Whether it is machinery, machine tools or heavy electrical plant

8.2	Description ITC Number	Quantity	FOB value in Rs.	Country of origin
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Total FOB Rs. value

- 8.3 Value of initial spares (FOB Rs.)
- 8.4 Estimated freight (Rs.)
- 8.5 Insurance (Rs.)
- 8.6 (i) Total C.I.F. value $(8.2+8.3+8.4+8.5)$ in Rs.
(ii) In foreign exchange
(iii) Rates of exchange used in conversion of Rs. into foreign exchange
- 8.7 Agents commission or procurement fee if any payable in foreign exchange
- 8.8 Condition of machinery: whether new, second-hand or reconditioned
- 8.9 Details of connected CG import licences already received/applied for:
Licence number; date; value; source of financing; sources of import.
- 8.10 Whether any further import of capital goods are envisaged for the project in addition to the items covered in the present application?

9. Specific Information on Import Licences to be Issued

- 9.1 Port of registration for clearance of goods
- 9.2 Validity period required for the import licence
- 9.3 Endorsement to avail of concessional rate of duty under ICT 72-A. as Project Imports required

10. Details of Supporting Documents/Information

- 10.1 Original Treasury Receipt/Bank Certificate ☐ Enclosed
No.....Date.....Value Rs.....
- 10.2 Photostat/attested copy of IVC Registration/Exemption Certificate ☐ Enclosed
No.....Date.....Valid upto.....

10.3	Photostat/attested copy of Industrial Licence/Letter of Intent, Registration Certificate from sponsoring authority.	☐	Enclosed
10.4	Proforma Invoice/other documentary evidence in duplicate in support of value of goods indicating date of invoice and its validity.	☐	Enclosed
10.5	Copies of Literature/Pamphlets/Specifications giving complete details of goods to be imported.	☐	Enclosed
		☐	Not applicable
10.6	Copy of each advertisement in ITJ/IES B Volume.....Date.....	☐	Enclosed
		☐	Not applicable
10.7	Tabular Statement of Responses received against advertisement/enquiries.	☐	Enclosed
10.8	Original certificate, from Small Industries Services Institute, certifying essentiality for replacement of machinery in case of Small Scale Industries only.	☐	Enclosed
		☐	Not applicable
10.9	Chartered Engineer's Certificate, in original regarding present condition of machinery/equipment to be replaced.	☐	Enclosed
		☐	Not applicable
10.10	If second-hand/reconditioned machinery is to be imported a certificate certifying machinery's age, present condition, original and present value and probable unexpired life from the Chartered Engineer.	☐	Enclosed
		☐	Not applicable
10.11	Photostat/attested copy of Registration certificates in case of Research and Development Institute/Laboratory registered with the Administrative Ministry.	☐	Enclosed
		☐	Not applicable
10.12	Proforma regarding import of prototype as per Appendix-32 of ITC Hand Book 1975-76.	☐	Enclosed
		☐	Not applicable
10.13	Copies of correspondence, if any, regarding efforts made to import machinery from Rupee Payment Area.	☐	Enclosed
10.14	Attested/Photostat copies of enquiries made to foreign suppliers and their replies, where efforts have been made to obtain Blue Prints/Drawing of equipments of machinery sought to be imported.	☐	Enclosed
		☐	Not applicable
10.15	Documentary evidence showing Government approval for		
	(i) Foreign collaboration.	☐	Enclosed
		☐	Not applicable
	(ii) Copy of Reserve Bank of India Certificate regarding balance available against foreign equity capital in cash.	☐	Enclosed
		☐	Not applicable
10.16	(i) Attested/photostat copy of terms and conditions of private credit arranged.	☐	Enclosed
		☐	Not applicable
	(ii) Statement showing countries of import preferences in case of Bilateral/Free Foreign Exchange.	☐	Enclosed
		☐	Not applicable

'E' FORM APPLICATION (PART II)

(To be submitted in quadruplicate along with four copies of application in 'E' Form for Import of Capital Goods by exporters-manufacturers—*vide* paragraph 131 of Chapter VI of the ITC Handbook of Rules and Procedure)

1. Name and full address of the exporter/manufacturer
2. Nomenclature of products manufactured indicating the products being exported
3. Quantity and value of production of each of the products manufactured in the last three financial years till to-date (in computing the value of production please give both the internal sale value as well as the f.o.b. export value).
4. Quantity and f.o.b. value of export product-wise, for the period as at (3) above (including also the countries to which exported. A statement of export in terms of quantity and f.o.b. value made, certified by the concerned Export Promotion Council/Commodity Boards should be enclosed).
5. Increase in future exports as a result of the installation of capital goods sought for import over the next five years both in terms of quantity and value.
6. Whether any export obligation was imposed in the letter of intent or industrial licence; if so, furnish details.
7. Whether the present application is connected with any foreign collaboration? If so, whether any export obligation was imposed in the foreign collaboration approval.
8. Whether you have any un-fulfilled export obligation? If so, details should be furnished.
9. Whether you are prepared to undertake an export obligation? If so, the extent of such obligation in terms of the percentage and value of production.
10. Whether you have made any application to DGTD/CCI&E/Office of Development Commissioner, Small Scale Industries, etc. for import of capital goods during the last 12 months? If so, give details of capital goods applied for—Capital goods cleared for import by Government, their value, source of finance and whether imports effected. In case any application for import of capital goods has been submitted against your export performance, please give details thereof.

(1) I/We hereby declare that the above statements are true and correct to the best of my/our knowledge and belief.

(2) I/We hereby declare that the goods for import of which the application has been made shall be used only for the manufacture of.....(Name of end product/s) and for the capacity licensed under the Industries (Development and Regulation) Act 1951 or approved by Government.

Signature.....

Name in Block Letters.....

Designation.....

Date.....

SECTION 29 OF THE FOREIGN EXCHANGE REGULATION ACT 1973 No. 46 of 1973

29. (1) Without prejudice to the provisions of section 28 and section 47 and notwithstanding anything contained in any other provision of this Act or the provisions of the Companies Act 1956, a person resident outside India (whether a citizen of India or not) or a person who is not a citizen of India but is resident in India, or a company (other than a banking company) which is not incorporated under any law in force in India or *in which the non-resident interest is more than forty per cent*, or any branch of such company, shall, *not except with the general or special permission of the Reserve Bank—*

(a) carry on in India, or establish in India a branch, office, or other place of business for carrying on any activity of a trading, commercial or industrial nature, other than an activity for the carrying on of which permission of the Reserve Bank has been obtained under section 28; or

(b) acquire the whole or any part of any undertaking in India of any person or company carrying on any trade, commerce or industry or purchase the shares in India of any such company.

(2) (a) Where any person or company (including its branch) referred to in sub-section (1) carries on any activity referred to in clause (a) of that sub-section at the commencement of this Act or has established a branch, office or other place of business for the carrying on of such activity at such commencement, then, such person or company (including its branch) may make an application to the Reserve Bank within a period of six months from such commencement or such further period as the Reserve Bank may allow in this behalf for permission to continue to carry on such activity or to continue the establishment of the branch, office or other place of business for the carrying on of such activity, as the case may be.

(b) Every application made under clause (a) shall be in such form and contain such particulars as may be specified by the Reserve Bank.

(c) Where any application has been made under clause (a), the Reserve Bank may, after making such inquiry as it may deem fit, either allow the application subject to such conditions, if any, as the Reserve Bank may think fit to impose or reject the application.

Provided that no application shall be rejected under this clause unless the parties who may be affected by such rejection have been given a reasonable opportunity for making a representation in the matter.

(d) Where an application is rejected by the Reserve Bank under clause (c), the person or company (including its branch), concerned shall continue such activity or close down the branch, office or other place of business established for the carrying on of such activity, as the case may be, on the expiry of a period of ninety days or such other later date as may be specified by the Reserve Bank from the date of receipt by such person or company (including its branch) of the communication conveying such rejection.)

(c) Where no application has been made under clause (a) by any person or company (including its branch), the Reserve Bank may, by order, direct such person or company (including its branch) to discontinue such activity or to close down the branch, office or other place of business established for the carrying on of such activity, as the case may be, on the expiry of such period as may be specified in the direction:

Provided that no direction shall be made under this clause unless the parties who may be affected by such direction have been given a reasonable opportunity for making a representation in the matter.

(3) Notwithstanding anything contained in sub-section (2), the Reserve Bank may, having regard to—

(i) the fact that any person or company (including its branch, referred to in sub-section (1), is carrying on any activity referred to in clause (a) of that sub-section at the commencement of this Act or has established a branch, office or other place of business for the carrying on of such activity at such commencement, in either case, in pursuance of any permission or licence granted by the Central Government; and

(ii) the nature of the activity which is being, or intended to be carried on by such person or company (including its branch),

by order, exempt—

(a) such person or company (including its branch); or

(b) any class of such person or companies (including their branches),

in relation to such activity as may be specified in the order, from the operation of the provisions of sub-section (2) subject to such conditions as may be specified in the order:

Provided that the Reserve Bank shall not make any order under this sub-section in a case where the activity which is being, or intended to be, carried on is solely of a trading nature.

(4) (a) Where at the commencement of this Act any person or company (including its branch) referred to in sub-section (1) holds any shares in India of any company referred to in clause (b) of that sub-section, then, such person or company (including its branch) shall not be entitled to continue to hold such shares unless before the expiry of a period of six months from such commencement or such further period as the Reserve Bank may allow in this behalf such person or company (including its branch) has made an application to the Reserve Bank in such form and containing such particulars as may be specified by the Reserve Bank for permission to continue to hold such shares.

(b) Where an application has been made under clause (a), the Reserve Bank may, after making such inquiry as it may deem fit, either allow the application subject to such conditions, if any, as the Reserve Bank may think fit to impose or reject the application:

Provided that no application shall be rejected under this clause unless the parties who may be affected by such rejection have been given a reasonable opportunity for making a representation in the matter.

(c) Where an application has been rejected under clause (b) or where no application has been made under clause (a), the Reserve Bank may, if it is of opinion that it is expedient so to do for the purpose of conserving the foreign exchange, direct such person or company (including its branch) to sell or procure the sale of such shares:

Provided that no direction shall be made under this clause unless notice of such direction for a period of not less than ninety days has been given to the person or company (including its branch) to be affected by such direction.

Explanation—For the purposes of this section, “company” has the same meaning as in clause (c) of the Explanation to section 28.

**Government of India
Bharat Sarkar
Ministry of Finance
Vitta Mantralaya
Department of Economic Affairs
Arthik Karya Vibhag**

GUIDELINES FOR ADMINISTERING SECTION 29 OF FOREIGN EXCHANGE REGULATION ACT 1973

These guidelines will apply to Indian companies having more than 40% foreign holdings and branches of foreign companies operating in India while seeking approval for carrying on any activity of a trading, commercial, or industrial nature or for starting fresh activities. These will however not apply to non-residents of Indian origin who have been allowed by the Government to make investment in India on a specific condition that neither the capital nor profits/dividends will be allowed to be repatriated.

Branches of foreign companies (except Airlines and Shipping Companies) seeking approval under the Foreign Exchange Regulation Act will be asked to convert themselves into Indian companies as per policy of Government. This would be without prejudice to any other conditions that may be laid down.

Category

Proposed Action

I. Industrial Activities

- | | |
|--|--|
| <p>(a) Indian companies having more than 40% foreign shareholding and branches of foreign companies engaged in the production of items specified in Appendix I of Industrial Licensing Policy, February 1973 or engaged in a predominantly export oriented industry (minimum exports being 60% of total production).</p> | <p>(i) Such Indian companies will be allowed to continue on the basis of the existing approvals subject to the condition that they will increase, within a specified period, Indian participation to not less than 26% of the equity of the company.</p> |
| <p>(b) Indian companies having more than 40% foreign shareholding who have been granted an industrial licence after February 1970 for manufacturing activities in the production of items specified in Appendix I of the Industrial Licensing Policy, 1973 or engaged in predominantly export-oriented industry (minimum exports being 60% of total production).</p> | <p>(ii) The branches of foreign companies will be required to convert themselves, within a specified period, into Indian companies with Indian participation being not less than 26% of the equity of the company.</p> <p>(iii) Such companies will be subject to dilution formula as and when they come up for expansion.</p> |
| | <p>(i) They will be exempt from the provisions of Section 29 subject to the condition that they will increase, within a specified period, Indian participation to not less than 26% of the equity of the company.</p> |

- | | |
|---|---|
| <p>(c) Indian companies having more than 40% foreign shareholding and branches of foreign companies having a valid industrial licence and engaged in production of items not specified in Appendix I of Industrial Licensing Policy 1973 but engaged in the manufacturing activities which need sophisticated technology.</p> | <p>(i) The extent of foreign shareholding in the existing Indian companies will be considered on merits of each case subject to the condition that they will increase within a specified period, Indian participation to not less than 26% of the equity of the company.</p> <p>(ii) The branches of foreign companies will be required to convert themselves within a specified period, into Indian companies with Indian participation of not less than 26% of the equity of the company.</p> <p>(iii) In determining whether a technology is sophisticated or not, Department of Science and Technology will be consulted and consideration will be given, <i>inter alia</i>, to aspects such as (i) whether the technology is used for the manufacture of products which would otherwise necessitate imports, (ii) whether the discontinuance of the manufacture of products with the technology would have adverse impact on the economy, etc.</p> |
| <p>(d) Indian companies having more than 40% foreign shareholding and branches of foreign companies engaged in other manufacturing activities.</p> | <p>(i) Such Indian companies will be required to bring down, within a specified period, foreign shareholdings to the level of 40%.</p> <p>(ii) The branches of foreign companies will be required to convert themselves into Indian companies having foreign shareholding not exceeding 40%, within a specified period.</p> <p>(iii) Alternatively, they will be required to change, within a specified period, their character from existing manufacturing activities to predominantly manufacturing activities in the areas specified in Appendix I of Industrial Licensing Policy 1973 or to engage themselves in predominantly export-oriented industries (minimum exports being 60% of total production).</p> |

II. Trading Activities

- | | |
|--|---|
| <p>(a) Indian companies having more than 40% foreign shareholding and branches of foreign companies engaged predominantly in internal trading and commercial activities.</p> | <p>(i) No fresh foreign equity participation will be permitted.</p> <p>(ii) Existing Indian companies will be required to bring down their foreign shareholding to 40% within a specified period.</p> <p>(iii) The branches of foreign companies will be required to convert themselves into Indian companies having foreign holding not exceeding 40% within a specified period.</p> <p>(iv) In exceptional cases where they have developed expertise, skills, or facilities (distribution net work, etc.) which are not readily available indigenously and are contributing significant to exports, foreign shareholding more than 40% but not exceeding 74% may be allowed depending upon the merits of each case.</p> <p>(v) Alternatively, they will be required to change, within a specified period, their character from predominantly trading activities to predominantly manufacturing activities in the areas specified in Appendix I of Industrial Licensing Policy 1973 or to engage themselves in predominantly export-oriented industries (minimum exports being 60% of total production).</p> |
|--|---|

- (b) Manufacturing companies *i.e.*, Indian companies with more than 40% foreign shareholding and branches of foreign companies engaged in trading activities in respect of products *not* manufactured by them.

(vi) If the above alternatives are not acceptable to them, they will be allowed a reasonable time to wind up their business activities in India.

- (i) They will not be denied permission for internal trading in respect of essential or associate products in the overall interest of the consumers as also of development of ancillaries provided the articles so traded are functionally related to the company's main manufacturing activities and constitute relatively a small portion of the overall activity (not exceeding 25% of ex-factory value of the annual production or Rs. 5 crores whichever is less). The approval shall also be subject to the condition that the companies shall not be permitted to use, for internal trade, their trade marks or brand names in respect of the products not manufactured by them.

III. Others

Indian companies having more than 40% foreign shareholding and branches of foreign companies engaged in:

- (a) Construction activities.

- (i) Indian companies having more than 40% foreign shareholding will be required to bring down their foreign shareholding to 40% within a specified period.
- (ii) In exceptional cases where they have developed such expertise or skills or technology which is not indigenously available, higher foreign shareholding not exceeding 74% of the equity may be allowed.
- (iii) Branches of foreign companies will be required to convert themselves into Indian companies with foreign shareholding not exceeding 40% within a specified period.

- (b) Plantation activities.

- (i) Tea plantation will, by and large, be treated at par with manufacturing industries specified in Appendix I of Industrial Licensing Policy 1973 subject to the condition that they will increase within a specified period Indian participation to not less than 26% of the equity of the company.
- (ii) Branches of foreign companies will be required to convert themselves, within a specified period, into Indian companies with Indian participation being not less than 26% of the equity of the company.
- (iii) Branches of foreign companies engaged in other than tea plantation activities will be required to convert themselves into Indian companies with foreign shareholding not exceeding 40% and the Indian companies will be required to bring down their foreign shareholding to 40% within a specified period.

(c) *Consultancy Work*

(i) Technical and engineering consultants.

- (i) Indian companies having more than 40% foreign shareholding will be required to bring down their foreign shareholding to 40% within a specified period.
- (ii) Branches of foreign companies will be required to convert themselves into Indian companies with foreign shareholding not exceeding 40% within a specified period.
- (iii) In exceptional cases, if they are engaged in such technology or skills which are indigenously not available, higher foreign shareholding not exceeding 74% of the equity may be allowed on merits.

(ii) Non-technical consultants.

- (i) So far as the management, financial and accountancy firms are concerned and since sufficient indigenous expertise in these spheres is available in the country, the Indian companies with foreign majority shareholding as well as branches of foreign companies will be required to reduce their foreign shareholding to 40% within a specified period.

(d) Manufacturing companies engaged in consultancy work.

- (i) They will be allowed to act as consultants in respect of those areas in which they have developed specialisation. Such facilities will however not be available to companies predominantly engaged in trading and non-manufacturing activities.

IV. *Airlines and Shipping Companies*

- (i) The functioning of branches of air and shipping companies operating in India will be decided on reciprocity basis.

V. *Miscellaneous*

Indian companies having more than 40% foreign shareholding and branches of foreign companies engaged in activities other than those specified herein before.

- (i) The branches of foreign companies will be required to convert themselves, within a specified period, into Indian companies with Indian participation of not less than 26% of the equity of the company.
- (ii) Indian companies having more than 40% foreign shareholdings will be required to bring down their foreign shareholding to 40% within a specified period.
- (iii) In exceptional cases, if they are engaged in such technology or skills which are indigenously not available higher foreign shareholding not exceeding 74% of the equity may be allowed on merits.

Explanatory Notes

- (i) While giving fresh approvals to the cases in accordance with the above guidelines, aspects such as the research and development programme initiated by the Indian company and stipulations which restrict the transfer of technology from the foreign collaborator to the Indian company, restrictions on sub-licensing of technology and stipulations for the acquisition of raw materials and components from the foreign collaborator, existing regulations in respect of the patent law, etc., will be borne in mind.

- (ii) Where a company is engaged in multi-activity operations, a total view will have to be taken of all the activities in which a company is engaged while considering the question of allowing it to continue to carry on business. The proportion of activity covered by Appendix I of the Industrial Licensing Policy, February 1973 and those falling outside thereof will be a material consideration. In such cases, if activities outside Appendix I constitute only a minor part of the total activities (not exceeding 25% of ex-factory value of the annual production or Rs. 5 crores whichever is less) it will be allowed to continue on the basis of existing approvals, provided Indian participation is not less than 26% of the equity of the company.
- (iii) While it will be open to companies primarily falling under Clause I(d) "other manufacturing activities" or Clause II(a) "Trading activities" to change their character and become predominantly manufacturing companies in the areas covered under Appendix I of the Industrial Licensing Policy, February 1973 or other approved categories under Clause I(c), they would have to obtain the requisite Industrial Licence and other Government approvals in the normal way, within the framework laid down by Government from time to time.
- (iv) In the case of 100% export-oriented units the foreign equity participation of more than 74% may be allowed on merits of each case.

APPLICATION FOR PERMISSION UNDER SECTION 29 OF THE FOREIGN EXCHANGE REGULATION ACT 1973 TO CARRY ON IN INDIA AN ACTIVITY OF A TRADING, COMMERCIAL OR INDUSTRIAL NATURE, OR TO ESTABLISH IN INDIA A BRANCH/OFFICE OR OTHER PLACE OF BUSINESS FOR CARRYING ON SUCH ACTIVITY, OR TO CONTINUE THE ESTABLISHMENT OF SUCH A BRANCH, OFFICE, ETC.

INSTRUCTIONS

- (i) Please submit the application in **quadruplicate**.
- (ii) Complete all columns in the form. Write 'N.A.' where not applicable.
- (iii) A composite application should be submitted for all the items of manufacture/activities of the applicant.
- (iv) If the space provided in the form is not sufficient, the required information may be given in the annexure(s) duly numbered and attached to this form.
- (v) For the purposes of Section 29 of the Foreign Exchange Regulation Act 1973 the term "company" means any body corporate and includes a firm or other association of individuals.

1. (a) Full name and address of the applicant. (b) Nationality (if the applicant is an individual). (c) Place of incorporation (if the applicant is a company.)	(a) (b) (c)
2. (A) If the applicant is a person resident outside India, please state, whether— (a) A citizen of India (b) Not a citizen of India. (B) If the applicant is a foreign citizen residing in India, please state— (a) Country of birth. (b) Date of birth. (c) Since when staying in India and probable duration of further stay in India. (d) Purpose of stay in India. (e) Particulars of Reserve Bank's approval obtained (if any) under Section 30 of F.E.R. Act 1973 for taking up any employment or practising any profession or carrying on any occupation, trade or business in India. (f) Whether enjoying any recurring remittance facilities; if so, details thereof.	(a) (b) (a) (b) (c) (d) (e) (f)

3. If the applicant is a company, please give the following particulars/documents—

(A) Authorised capital

- (a) Equity
- (b) Preference

(B) Paid-up capital—

- (a) Equity
- (b) Preference

(C) Held by—

(i) Non-residents

- (a) Firms, companies and other institutions/bodies
- (b) Individuals

(ii) Residents

- (a) Firms, companies and other institutions/bodies
- (b) Individuals

(D) Particulars of reserves created and/or capitalisation of reserves, if any, during the last three years.

(Please attach a list giving the names and addresses of the firms, companies and other institutions/bodies and the number and percentage of shares held by each of them in the applicant company. Individual holdings may, however, be grouped together)

(E) Names/addresses of the directors/proprietors and their nationality and place of permanent residence.

(F) If the company is already functioning in India, please attach four copies each of its last three years' Balance Sheets and Profit and Loss Account statements.

(a)

(b)

(a)

(b)

	Equity		Preference	
	Number of shares	%	Number of shares	%
(i) (a)				
(b)				
(ii) (a)				
(b)				
Total				

4. Particulars of the trading/commercial/industrial activity(ies) being undertaken/proposed to be undertaken, or of the branch(es)/office(s) or other place(s) of business established/to be established in India for which the application is being made.

(A) Nature of activity(ies)—

- (i) Trading
- (ii) Commercial
- (iii) Industrial

(Please give a complete list of all the activities/items of manufacture.)

(i)

(ii)

(iii)

(B) If the activity(ies) is/are of trading/commercial nature, please give—

- (i) Brief description of the activity(ies).
- (ii) Type of product(s)/goods covered.
- (iii) Whether the product(s)/goods traded/to be traded is/are/will be of Indian origin and/or is/are being/will be imported from abroad.

(Please attach four certified copies of the relative agreement(s)/correspondence exchanged with local parties/manufacturers.)

(iv) If the applicant has already been carrying on the above activity(ies) or has established branch(es)/office(s) or any other place(s) of business for this purpose, please state:

- (a) Date(s) of commencement of the activity(ies)/establishment of the branch(es)/office(s), etc.
- (b) Value of turnover of each of the activities included in the applicant's Balance Sheet for each of the last three years.

Purchases

In India

From outside India

Sales

In India

Export outside India

(Please attach bank certificate(s) in support of the foreign exchange earnings.)

- (c) Outstanding quantities and value of orders/contracts of each of the activities existing as on the date of the application.

(v) In the case of new trading/commercial activity(ies) please state the expected annual turnover (in rupees) activity-wise—

Purchases

In India

From abroad

Sales:

In India

Exports outside India

(vi) Whether the product(s)/goods purchased is/are being/ will be subject to any processing before it is/they are sold; if so, state the nature of processing.

(i)

(ii)

(iii)

(iv)

(a)

(b)

(c)

(v)

(vi)

(vii) If any portion of the proposed business is being/will be undertaken as agent(s) of any person(s) and/or company (ies), please give number(s) and date(s) of Reserve Bank's approval(s) obtained (if any) for carrying on such activity(ies) under Section 28 of the F.E.R. Act 1973, or state whether separate application(s) has/have been submitted to the Bank for this purpose.

(vii)

(C) If the activity(ies) is/are of industrial nature, please give—

(i) Brief description of the activity(ies), including

(i)

(a) The line(s) of manufacture(s)

(a)

(b) Installed capacity(ies)/size of the project

(b)

(c) Cost of the project

(c)

(ii) Whether the manufacture(s) is/are covered by an industrial licence; if so, please state—

(ii)

(a) Number and date of the licence.

(a)

(b) Licensed capacity(ies) stating the shifts as indicated in the industrial licence.

(b)

(c) Item(s) of manufacture(s) and scheduled industry(ies) under the Industries (Development and Regulation) Act to which it/they relate(s).

(c)

(d) Whether any items of manufactures are covered by Appendix I of the Industrial Licensing Policy 1973? If so, state the licensed and installed capacity of each item and number and date of the relative industrial licence.

(d)

[Please attach (i) a separate annexure giving the above details in respect of each item of manufacture, together with a schedule of the annexures attached, and (ii) certified copy of the industrial licence, in quadruplicate.]

(iii) (a) If the manufacturing activity(ies) is/are not covered by an industrial licence, please state whether the manufacture(s) is/are exempted from such a licence or whether it/they belong(s) to delicensed/non-scheduled/small scale industry or such other category.

(iii) (a)

(b) Capacity(ies) registered:

(b)

(i) With DGTD

(i)

(ii) With State Director of Industries

(ii)

(iii) Under Section 10 of the I. (D. & R.) Act; give number(s) and date(s) of registration certificate(s)

(iii)

(iv) If the applicant has already been carrying on the above activity(ies) or has established branch(es)/office(s) or any other place(s) of business for this purpose, please state—	(iv)
(a) The date(s) of commencement of the activity(ies)/establishment of branch(es)/office(s), etc.	(a)
(b) Value of production and sales item-wise during each of the last three years.	(b)
(c) Amount of foreign exchange earnings (if any) from exports (giving break-up of item-wise export earnings) and other sources, during each of the last three years.	(c)
[Please attach bank certificate(s)].	
(v) In the case of new or proposed industrial activity(ies) state the expected annual foreign exchange earnings (if any) by way of exports, etc. (item/activity-wise).	(v)
(vi) If the activity(ies) is/are undertaken under any foreign collaboration arrangement(s), please furnish the following particulars:	(vi)
(a) Government approval(s) number(s) and date(s).	(a)
(b) Reserve Bank's approval(s) number(s) and date(s).	(b)
(c) Detailed terms and conditions approved.	(c)
(d) Date from which recurring payments are effective and the period thereof.	(d)
(e) Period of collaboration agreement(s).	(e)
(Copies of the approvals may be attached in quadruplicate)	
(vii) If the applicant is using/proposes to use any foreign trade mark(s) on product(s) intended for internal sales and or exports, please state:	(vii)
(a) Whether trade mark(s) is/are/will be used as 'registered user' or otherwise (full particulars may be given).	(a)
(b) Whether any payments are/will be made to the owners of foreign trade mark(s)? If so, the amounts of remittances made during last three financial years or expected to be made annually.	(b)
(viii) If the applicant has licensed/proposed to licence any trade mark(s) to other Indian company(ies), please state:	(viii)
(a) Name/s of the Indian company(ies).	(a)
(b) Terms and conditions of licensing.	(b)
(c) Details of compensation etc. received during the last three years/expected to be received per annum.	(c)

(D) Whether the undertaking is a dominant undertaking in respect of any item manufactured/produced and/or whether it is registered under MRTP Act? If so, full particulars may be furnished. (E) Name(s) of the place(s) where the activity(ies) referred to under item (B) or (C) above is/are being/will be undertaken or where the branch(es)/office(s) etc. has/have been/will be established for this purpose. (F) How the activities referred to under items (B) and (C) above are being/will be financed, stating the source(s) of finance.	(D) (E) (F)
5. Full justification for carrying on the activity(ies) or for opening/continuance of the branch(es)/office(s), etc. referred to under item 4 above.	
6. Particulars of remittance made abroad and/or due but not remitted by the applicant under the following heads during each of the last three years, quoting Reserve Bank's approval(s), wherever necessary. (i) Profits/dividends (ii) Head office expenses (iii) Technical know-how fees and other lumpsum payments (iv) Royalty and other recurring payments (v) Imports (a) Raw materials (b) Components and spare parts (c) Capital goods (vi) Others (particulars may be given).	(i) (ii) (iii) (iv) (v) (a) (b) (c) (vi)
7. (i) If the applicant is a consultancy engineering firm, please state whether it is a firm of— (a) Consultancy engineers/project consultants. (b) Process engineers/process know-how suppliers. (c) Contracting engineers/equipment designers, manufacturers and suppliers. (ii) Nature of services offered. (iii) Particulars of industry(ies) for which each of the services referred to above are made available. (iv) In case the consultancy firm was set up with foreign capital participation approved by Government, the industries/field specifically approved should be indicated along with Government's approval number and date.	(a) (b) (c) (ii) (iii) (iv)

(v) Whether the firm is registered with the Department of Industrial Development as Technical Consultancy firm? If so, number and date of registration may be given. (vi) List of jobs done and the remuneration received for the said jobs during the last three years may be attached.	(v) (vi)
3. Whether the applicant has/proposes to set up Research Development Cell in his/its organisation? If so, the annual expenditure incurred during the last three years/expected to be incurred annually may be given.	
9. (A) Number of the staff and labour employed by the applicant: (a) Technical staff (b) Administrative and accounts staff (c) Labour (i) Skilled (ii) Unskilled (B) Whether any foreign personnel are employed? If so, please attach a list giving the names and nationalities of such persons, their designation, period of employment, emoluments and particulars of Reserve Bank's approvals obtained (if any) for their employment.	(a) (b) (c) (i) (ii) (B)
10. Any other information which the applicant wishes to furnish in support of this application.	

I/We hereby declare that the particulars given above are true and correct to the best of my/our knowledge and belief.

(Stamp and Signature of the Applicant)

Place: _____

Date: _____

PRESS NOTE

ENDORSEMENT OF INDUSTRIAL CAPACITIES ON THE BASIS OF MAXIMUM UTILISATION OF PLANT AND MACHINERY

New Delhi, 28 January

In 1963, Government had issued instructions that capacities in industrial licences should normally be expressed on the basis of maximum utilisation of plant and machinery on an annual basis, and since then, letters of intent/industrial licences have been issued on this basis. In 1972, Government introduced a scheme of fuller utilisation of installed capacity, which, among other things, provided for endorsement of licences issued on single or double shift basis so as to allow for maximum utilisation. This scheme was applicable to a number of specified industries. In the case of a number of undertakings, during the course of expansion and diversification, capacities earlier expressed on single or double shift basis have also been rationalised on the basis of maximum utilisation.

2. Thus, in a large number of cases, industrial licences earlier issued on single or double shift basis have been brought on to the basis of maximum utilisation of plant and machinery. However, there may still be some cases where capacities continue to be expressed on single or double shift basis. Government consider that, in the present context, it is desirable that installed capacities in all cases should, as far as practicable, be allowed to be utilised to the fullest possible extent. Government have, therefore, decided that industrial undertakings, which still hold industrial licences, specifying single or double shift basis, may apply for the endorsement of their licences allowing for the maximum utilisation of plant and machinery, and that such requests be considered on the basis of a special procedure and allowed on merits of the case.

3. The industrial undertakings concerned may apply, with 5 spare copies, supersubscribed "endorsement of licences on maximum utilisation basis", and addressed to the Joint Secretary concerned in the administrative Ministry. There is no prescribed form for this purpose, but the application should give details of the industrial undertaking, the particulars of the item and the capacity as shown in the licence, the capacity on maximum utilisation basis, the details of imported and indigenous raw material requirements, and the actual production of the unit during the last three years. The details of the industrial undertaking should include the names of directors/proprietors of the undertaking, the fact whether the undertaking is registered under the MRTP Act or has received a notice requiring such registration under the Act, and the details of the non-resident shareholding, if any, in the company. The application should be accompanied with a photostat copy of the relevant industrial licence. While examining such requests, Government will take into consideration the relative priority of the industry, the availability of imported and scarce indigenous raw materials, and the eligibility of the parties to participate in such industries in accordance with the industrial licensing policy of February 1973. In allowing endorsement of the capacities on maximum utilisation basis, the Government may stipulate such conditions, as to exports or distribution, as may be considered appropriate in suitable cases. The recommendations of the administrative Ministry will be forwarded to the Secretariat for Industrial Approvals, which will take necessary action for the endorsement of licences on maximum utilisation basis.

PRESS NOTE

ENDORSEMENT OF INDUSTRIAL CAPACITIES ON THE BASIS OF MAXIMUM UTILISATION OF PLANT AND MACHINERY IN CASES OF UNITS REGISTERED WITH THE TECHNICAL AUTHORITIES AND DIRECTORATE OF SMALL SCALE INDUSTRIES

New Delhi, 7 August 1975

In the context of Government's policy to promote fuller utilisation of existing capacity, the Government had announced through a press note on 28 January 1975 that all industrial undertakings, which hold industrial licences, specifying single or double shift basis, may apply for the endorsement of their licences allowing for the maximum utilisation of plant and machinery, and that such request would be considered on the basis of a special procedure and allowed on the merits of each case.

2. It has now been decided that this facility should also be extended to the units registered with the technical authorities and also with the Directorates of Small Scale Industries. All the industrial undertakings coming under this category, who have been registered specifically on a single or double shift basis, may apply to the concerned registering authority, giving details of the particulars of the items being manufactured, capacity as shown in the registration letter, the capacity on maximum utilisation basis, the details of imported and indigenous raw materials requirements and the actual production of the unit during the last three years. The details should include the names of Directors/proprietors of the undertakings, the fact whether the undertaking is registered under the MRTP Act or has received a notice requiring such registration under the Act, and the details of the non-resident share-holding, if any, in the company. The application should be accompanied with a photostat copy of the relevant letter under which the unit was registered. While examining such requests Government will take into account the relevant priority of the industries, the availability of imported and scarce indigenous raw materials and the eligibility of the party to participate in such industries in accordance with the industrial licensing policy of February 1973. In allowing endorsement of the capacities on maximum utilisation basis, the Government may stipulate such conditions, as to exports or distribution as may be considered appropriate in suitable cases.

PRESS NOTE

REVISION OF DEFINITION OF SMALL SCALE INDUSTRIES AND SMALL SCALE ANCILLARY INDUSTRIES

New Delhi, 19 May 1975

The strategic role of small scale industries in the country's overall economic development has been recognised in the successive Five Year Plans. During the last two decades, over 400,000 small scale industries have been established all over the country and they have been satisfactorily meeting the demand for a wide range of consumer goods, producer's goods, ancillaries and components. They have also facilitated the broadening of entrepreneurial base in the country and the decentralised pattern of industrial growth. However, in view of the steep increase in prices of capital equipment and of replacement costs, the need for an upward revision in the present ceilings in the capital investment in the definition for small scale industries, namely, Rs. 7.5 lakhs and for small scale ancillary industries, namely, Rs. 10 lakhs had become obvious. The question of revision of definition was discussed at great length at the 32nd meeting of the Small Scale Industries Board held in November 1974. The unanimous view of the Board was that the increase in the prices of capital equipment has made the present ceilings in the definition unrealistic and that a revision of the ceiling was necessary to facilitate the modernisation of existing small industries and the growth of new viable units in sophisticated lines of production. The Board recommended that the ceiling in investment in plant and machinery should be raised from the present level of Rs. 7.5 lakhs to Rs. 10 lakhs and that of ancillary units from Rs. 10 lakhs to Rs. 15 lakhs. The revised definitions recommended by the Board are as under:

(i) **Small Scale Industries**

"Undertakings having investments in fixed assets in plant and machinery not exceeding Rs. 10 lakhs".

(ii) **Ancillary Industries**

"Undertakings having investments in fixed assets in plant and machinery not exceeding Rs. 15 lakhs and engaged in -

(a) the manufacture of parts, components, sub-assemblies, toolings or intermediates; or

(b) the rendering of services,

and supplying or rendering, or proposing to supply or render 50% of their production or the total services, as the case may be, to other units for production of other articles:

Provided that no such undertaking shall be a subsidiary of, or owned or controlled by, any other undertaking".

2. The Government of India have accepted the revised definitions recommended by the Board and decided to give effect to the decisions with effect from 1 May 1975.

3. Apart from the increase in the monetary ceiling, the new definition for ancillaries involves changes in the following important respects:

(i) Units producing intermediates will now be recognised as ancillaries.

(ii) Units providing servicing facilities, e.g., sand-blasting, machining, pressure cleaning, grinding, etc. will be recognised as ancillaries.

(iii) The concept of "parent" unit will now include small scale industries also. Thus, one small industry can function as ancillary to another.

(iv) A unit to be recognised as ancillary should supply or propose to supply at least 50% of its production to one or more parent units.

4. Certain clarifications and explanations on the definition of small scale industries have been issued from time to time by the Government and these stand valid for the revised definition too. They are the following:

(i) In calculating the value of plant and machinery, the original price paid by the owner, irrespective of whether the plant and machinery are new or second hand, will be taken into account.

- (ii) The cost of equipment such as tools, jigs, dies, moulds and spare parts for maintenance and the cost of consumable stores will be excluded in computing the value of plant and machinery. Similarly, the cost of installation of plant and machinery will also be excluded.
- (iii) In the case of imported machinery, import duty will be included, but not the miscellaneous expenses like transportation from the port to the site of the factory, demurrage, if any, paid at the port and premium if any paid for import entitlement for import of machinery. However, shipping charges, customs clearance charges and sales tax should be included in computing the cost of plant and machinery.
- (iv) The cost of generating sets, if any, installed will be excluded. Similarly, the cost of extra transformers, etc. which have to be installed by a unit as per the regulations of State Electricity Boards would also be excluded.
- (v) The Bank charges and service charges paid to the National Small Industries Corporation or to the State Small Industries Corporations will be excluded in computing the cost of plant and machinery.

5. The implications of the changes in the definitions are as follows:—

- (i) All industrial units covered by the new definition, existing as well as those newly started, will be eligible to the facilities and concessions open to small scale industries, such as credit on liberalised terms, allotment of factory sheds/plots in industrial estates/industrial areas, supply of machinery on hire-purchase terms through the NSIC and State Corporations, participation in Government stores purchase programme, training and industrial extension services.
- (ii) All small scale industries and small scale ancillary industries covered by the revised definition should register themselves with their respective State Directorates of Industries. Such units will be allocated indigenous raw materials, wherever such practice prevails, from out of the quotas allotted to the State Directors of Industries. Applications for imported raw materials for such units will be sponsored by the Directors of Industries.

However, small scale industries and small scale ancillary industries which were registered with DGTD prior to the introduction of the revised definition, will continue to receive assistance in the matter of raw materials through the DGTD as at present; they will have the option to be transferred to the State Directorates of Industries, if they choose to apply for such transfer within six months from the date the revised definitions come into force. For all other facilities, these units will be registered as small scale industries with Directors of Industries.

- (iii) All units which cross the limit of investment as now prescribed in definition of small scale/ancillary units by process of natural growth will need registration with DGTD or other technical authorities. The units engaged in the manufacture of such items which are not eligible for exemptions from the licensing provisions in terms of notification dated 16 February 1973 issued by the Deptt. of Industrial Development (e.g. units engaged in the manufacture of items exclusively reserved for small scale sector, units requiring foreign exchange for import of components and raw materials in excess of the prescribed limits and industries requiring special regulation) will need a 'Carrying-on-business' licence before crossing this limit. Such units will have to submit their application in the prescribed manner to the Secretariat for Industrial Approvals. In granting the registration with DGTD/technical authorities, or the C.O.B. licences, the Government may impose export obligation on such units consistent with the policy of protection to the small scale sector.

Directors of Industries will keep a special watch over the units which are about to cross the upper limits of the definition so as to enable a smooth transfer of units from the Directorate of Industries to DGTD/technical authorities and that the units take timely action to obtain the C.O.B. licences, wherever necessary.

However, if a small scale unit wishes to have some more time for the transfer to the DGTD list, a grace period upto 2 years will be allowed during which period it will continue to enjoy all the facilities under the small industries programme. A special report on such units will be made by the Directors of Industries to the Development Commissioner, Small Scale Industries.

6. Government have separately issued notifications vide No. IDRA/29B/75 dated 19 May 1975 substituting the existing definitions for "small scale units" and "ancillary units" by the revised definitions for purposes of the Industries (Development and Regulation) Act, 1951.

PRESS NOTE

LIBERALISATION OF INVESTMENT PROCEDURE
FOR STIMULATING PRODUCTION*New Delhi, 25 October 1975*

Pursuant to item 14 in the 20 point economic programme announced by the Prime Minister, Government have further reviewed the question of relaxing and simplifying the industrial licensing policies and procedures with a view to stimulate investment in the priority sectors and to ensure fuller utilisation of the installed capacities. Government have decided to exempt from the normal industrial licensing requirement proposals from medium entrepreneurs to set up industrial capacities based on indigenous equipment and local raw materials, and also utilise to a fuller extent the existing installed capacities.

2. Accordingly, proposals for the establishment of new undertakings, substantial expansion and manufacture of new articles by medium entrepreneurs will be exempted from the licensing provisions of the Industries (Development and Regulation) Act in respect of the following industries:

1. Cotton spinning for the manufacture of cotton yarn upto a capacity of 50,000 spindles subject to the following:
 - (a) the packings for hand- looms should be in accordance with the policy,
 - (b) no new unit should be less than 25,000 spindles,
 - (c) this relaxation is not applicable to units in large cities/metropolitan towns.
2. Solvent extraction of oil/oil cakes from minor seeds including cotton seeds.
3. Writing, printing and wrapping paper from agricultural residue and waste.
4. Rayon grade pulp from bamboo.
5. Refractories.
6. Water pumps beyond 10 cm × 10 cm.
7. Cotton and linter pulp.
8. Tractor drawn agricultural implements.
9. Glass slag and mineral wool and products thereof.
10. Hard board including fibre board/chip board and the like.
11. GLS lamps.
12. Industrial sewing machines.
13. Basic drugs.
14. Forged hand tools and small tools.
15. Leather goods except those reserved for S.S.I.
16. Industrial machinery.
17. Surgical and medicinal rubber products.
18. LT switchgear.
19. Machine tools.
20. Industrial and scientific instruments.
21. Basic insecticides.

3. This facility is, however, available subject to the conditions that the industrial undertaking should not require imported raw- materials, imported capital goods or foreign collaboration. This facility will, however, be not

available to items reserved for small scale sector. It will also not be available to industrial undertakings falling under the purview of the MRTP Act or to a foreign company falling under the purview of the Foreign Exchange Regulation Act. These industrial undertakings will continue to be subject to the discipline of the industrial licensing. Industrial undertakings which are exempted from the need to obtain industrial licences will be required to register themselves with the concerned technical authorities like the DGTD.

4. Government have also decided that, with a view to achieve the twin objectives of containing inflation and fuller utilisation of installed capacities, medium entrepreneurs will be allowed to utilise their installed capacities without limit even though this may be in excess of their licensed capacity in the following industries:

1. Special alloy, iron and steel castings, S.G. iron castings, stainless steel castings and closed die forgings.
2. Diesel engines (above 15 H.P.) and pumps (other than small pumps reserved for S.S.I.).
3. Equipment for transmission and distribution of electricity.
4. Power transformers.
5. Switchgears.
6. Electric motors—specialised types (*e.g.* flame-proof motors).
7. Electric furnaces.
8. Electronic components and equipment.
9. Commercial vehicles.
10. Tractors.
11. Scooters.
12. Automobile ancillaries.
13. Industrial machinery.
14. Machine tools.
15. Conveying equipment.
16. Cranes.
17. Earth-moving, mining and metallurgical equipment.
18. Hydraulic equipment.
19. Nitrogenous and phosphatic fertilisers.
20. Inorganic heavy chemicals.
21. Organic heavy chemicals.
22. Fine chemicals including photographic chemicals.
23. Synthetic rubber and rubber chemicals.
24. Industrial explosives.
25. Insecticides, fungicides, weedicides and the like.
26. Paper and pulp including paper products.
27. Refractories and furnace-lining bricks.
28. Portland cement.
29. Basic drugs.

This facility, however, will be available to industrial undertakings coming under the purview of the MRTP Act and Foreign Exchange Regulation Act subject to the condition that the excess production is exported or sold in accordance with the directions of the Government.

5. Necessary notifications to give effect to these decisions under section 29B of the IDR Act are being issued separately.

Two notifications issued on 1 November 1975 to give effect to the above decisions are reproduced as annexure to this appendix.

NOTIFICATIONS

New Delhi, 1 November 1975

S.O. 637(E)/IDRA/29B/75.—In exercise of the powers conferred by sub-section (1) of section 29B of the Industries (Development and Regulation) Act 1951 (65 of 1951), the Central Government hereby exempts from the operation of sections 10, 11, 11A and 13 of the said Act and the rules made thereunder: all industrial undertakings pertaining to any of the scheduled industries specified in the Schedule to this notification, subject to the following conditions, *namely*:

- (1) The articles of manufacture shall not be an article specified in Schedule 1 to the notification No. 98E/IDRA/29B/73/1, dated 16 February 1973 of the late Ministry of Industrial Development (Department of Industrial Development), as ammended from time to time.
- (2) The industrial undertakings shall not require imported raw materials or imported capital goods or involve foreign collaboration.
- (3) The industrial undertaking does not fall within the purview of the Monopolies and Restrictive Trade Practices Act 1969 (54 of 1969) or within the purview of the Foreign Exchange Regulation Act 1973 (46 of 1973).

This is in addition to and not in derogation of notification No. S.O. 98E/IDRA/29B/73/1, dated 16 February 1973 of the late Ministry of Industrial Development (Department of Industrial Development).

Schedule

1. Cotton spinning for the manufacture of cotton yarn upto a capacity of 50,000 spindles subject to the following:
 - (a) the packings of yarn in hank form and the count-wise production should be in accordance with the policy in force and the directions issued by the Textile Commissioner in this regard from time to time,
 - (b) new unit should have a capacity of 25,000 spindles.
 - (c) the unit should be located in an area other than in town with a population of more than 10 lakhs.
2. Solvent extraction of oil/oil cakes from minor seeds including cotton seeds.
3. Writing, printing and wrapping paper from agricultural residue and waste.
4. Rayon grade pulp from bamboo.
5. Refractories.
6. Water pumps beyond 10 cm × 10 cm.
7. Cotton seed linter pulp.
8. Tractor drawn agricultural implements.
9. Glass slag and mineral wool and products thereof.
10. Hard board including fibre board/chip board and the like.
11. GLS lamps.
12. Industrial sewing machines.
13. Basic drugs.
14. Forged hand tools and small tools.
15. Leather goods except those reserved for small scale industries.
16. Industrial machinery.
17. Surgical and medicinal rubber products.

18. LT switchgears.
19. Machine tools.
20. Industrial and scientific instruments.
21. Basic insecticides.

S.O. 638(E)/IDRA/29B/75.—In exercise of the powers conferred by sub-section (1) of section 29B of the Industries (Development and Regulation) Act 1951 (65 of 1951), the Central Government hereby exempts all industrial undertakings registered under the said Act or in respect of which any licence or permission has been issued under that Act and pertaining to any of the scheduled industries specified in the schedule to this notification, from the operation of clause (d) of sub-section (1) of section 13 of the said Act, subject to the following conditions, *namely*:

- (1) The articles of manufacture shall not be an article specified in Schedule I to notification No. 98E/IDRA/29B/73/1, dated 16 February 1973 of the late Ministry of Industrial Development (Department of Industrial Development), as amended from time to time.
- (2) The industrial undertaking does not fall within the purview of the Monopolies and Restrictive Trade Practices Act 1969 (54 of 1969) or within the purview of the Foreign Exchange Regulation Act 1973 (46 of 1973).
- (3) The industrial undertaking will not instal additional machinery either indigenous or imported.

This notification is in addition to and not in derogation of notification No. S.O. 98E/IDRA/29B/73/1, dated 16 February 1973 of the late Ministry of Industrial Development (Deptt. of Industrial Development).

Schedule

1. Special alloy iron and steel castings, S.G. iron castings, stainless steel castings and closed die forgings.
2. Diesel engines (above 15 H.P.) and pumps (other than small pumps reserved for small scale industries).
3. Equipment for transmission and distribution of electricity.
4. Power transformers.
5. Switchgears.
6. Electric motors—specialised types (*e.g.* flame-proof motors).
7. Electric furnaces.
8. Electronic components and equipment.
9. Commercial vehicles.
10. Tractors.
11. Scooters.
12. Automobile ancillaries.
13. Industrial machinery.
14. Machine tools.
15. Conveying equipment.
16. Cranes.
17. Earth-moving, mining and metallurgical equipment.
18. Hydraulic equipment.
19. Nitrogenous and phosphatic fertilisers.
20. Inorganic heavy chemicals.
21. Organic heavy chemicals.
22. Fine chemicals including photographic chemicals.
23. Synthetic rubber and rubber chemicals.
24. Industrial explosives.
25. Insecticides, fungicides, weedicides and the like.
26. Paper and pulp including paper products.
27. Refractories and furnace-lining bricks.
28. Portland cement.
29. Basic drugs.

PRESS NOTE

EXCESS PRODUCTION OVER LICENSED CAPACITY— AVAILING OF THE FACILITY BY MRTP AND FOREIGN COMPANIES

New Delhi, 4 November 1975

In the Government of India Press Note dated 25 October 1975, it was announced *inter-alia*, that the facility of utilising installed capacity without limits even though this may be in excess of the licensed capacity would be available to industrial undertakings coming within the purview of the MRTP Act and Foreign Exchange Regulation Act subject to the condition that the excess production is exported or sold in accordance with the directions of the Government.

It is hereby clarified that such undertakings would not be exempted from the operation of the licensing provisions, but a simplified procedure has been evolved to consider their applications for recognition of the utilisation of their installed capacity. Such undertakings coming within the purview of MRTP Act and/or FERA as the case may be, which desire to avail of this facility with a view to utilising fully their installed capacities, will have to apply to the Joint Secretary concerned in the administrative Ministry giving particulars of the licence number and date, the licensed capacity, installed capacity claimed, additional production proposed to be achieved in excess of the licensed capacity, proposals of export, production during the past three years, etc. The application should be sent in quintuplicate. These applications will be considered by the Administrative Ministry in consultation with appropriate agency like the concerned technical authority, Department of Company Affairs etc. In the case of undertakings coming within the purview of the MRTP Act, no separate application under MRTP Act will be necessary as this will itself be deemed to be an application under the MRTP Act. These applications will be disposed off within two months from the date of their receipt with such conditions regarding disposal of the additional production as considered appropriate and necessary, which is sought to be achieved by fuller utilisation of installed capacity and without the addition of any equipment, indigenous or imported etc. The applicant company will have to get their licence endorsed by the SIA in the Department of Industrial Development in the light of the decision communicated to the Administrative Ministry and conform to those conditions while achieving the increased output in excess of licensed capacity.

PRESS NOTE

RECOGNITION OF ADDITIONAL CAPACITIES AS A RESULT OF REPLACEMENT AND MODERNISATION OF EQUIPMENT

New Delhi, 21 August 1975

In the context of Government's policy to promote industrial growth, Government have been considering, for some time past, the question of working out a special procedure for replacement and modernisation of equipment needed by the Indian industry, particularly the traditional ones, which have been beset with the problem of obsolescence and sickness. The need for replacement and modernisation of obsolete equipment has long been recognised. While replacing equipment an industrial undertaking is expected to take into account the technological developments that have taken place in the intervening period including sophistication in process know-how and technology, higher speed of modern equipment, qualities of material, and the size and capacity of equipment now available in replacement of worn-out equipment. More often than not, this would result in replacement by equipment of a different size or of a different design, yielding a higher productive capacity.

2. Government have, therefore, decided that in cases where increased output is the direct consequence of replacement of old equipment, the necessary amendment in the industrial licence will be granted liberally and on the basis of a special procedure, provided that—

- (i) such replacement or modernisation of equipment does not result in any encroachment of products reserved for the small scale sector;
- (ii) there is no net increase in the outgo of foreign exchange.

When the replacement is by way of imported equipment requiring prior approval of the C.G. Committee, the C.G. Committee itself will accord approval for the increase in capacity arising from the replacement/modernisation after satisfying itself that the above conditions have been fulfilled. The Committee will, also ensure, while according its approval, that the proposed replacement or modernisation does not lead to any distortion of the plan priorities or market shares. On receipt of the C.G. Committee's approval, the consequential amendment in the industrial licences will be carried out by the Secretariat for Industrial Approvals.

3. In the case of replacement by way of indigenous equipment it has been decided to adopt a simplified procedure and the Joint Secretary concerned with the industry in the Administrative Ministry has been authorised to receive such proposals and to accord necessary industrial approvals after satisfying himself that the conditions enumerated in para 2 above have been fulfilled. In the case of proposals received from foreign companies as defined under FERA and undertakings coming under the purview of MRTP Act, these would be considered by a Task Force to be constituted in the Administrative Ministry concerned consisting of representatives of concerned Ministries including that of the Department of Company Affairs. The Task Force would accord approvals to such proposals expeditiously.

4. It is clarified that any increase in capacity for the reasons mentioned above will be over and above the normal permissible limit of 25 per cent in production over the authorised/licensed capacity.

PRESS NOTE

AUTOMATIC GROWTH OF CAPACITY ALLOWED TO SELECTED ENGINEERING INDUSTRIES

New Delhi, 21 August 1975

Government have lately taken a number of measures in order to revive investment and growth in the industrial sector, particularly with regard to fuller utilisation of the existing capacities in the different sectors with marginal investments and better operational efficiency. Industrial undertakings particularly in the export field cannot afford to have stagnant production capacities and, therefore, the need to keep pace with the trends and technology, to generate internal sources for modernisation and rehabilitation and also to partially absorb the escalations in the cost of raw materials, wages etc. is imperative. In order to consider these problems of the engineering industry with a view to increasing our exports and also the competitiveness abroad, a Committee was appointed by the Government and one of the recommendations of the Committee was that certain selected engineering industries should be allowed to grow at the rate of 5 per cent per annum or upto a ceiling of 25 per cent in a plan period in physical terms, in one or more steps over their presently authorised capacity. In particular such facility for natural growth without prior approval is considered essential to give a fillip to our engineering exports.

2. Government have accepted this recommendation and have accordingly decided that industrial undertakings engaged in engineering industries listed in the annexure, which have been specifically identified by the Committee as being of particular importance to our export effort could be permitted to grow at the rate of 5 per cent per annum or upto a limit of 25 per cent in a plan period in one or more steps in physical terms automatically, over their presently authorised capacity, subject to the following conditions:

- (i) The product mix should not conflict with the items reserved for the small scale sector;
- (ii) The investment requirements should be taken care of by the concerned undertaking itself and the financing institutions should not be approached for any long term capital loans etc;
- (iii) No import of capital equipment should ordinarily be involved but where import of capital goods is envisaged, Government would examine whether suitable export obligation should be imposed;
- (iv) The facility of automatic growth would not be extended to undertakings having subsisting foreign collaboration agreements with restrictive clauses inhibiting exports, unless such clauses are removed;

3. Industrial undertakings engaged in industries listed in the annexure and fulfilling the above conditions can increase their capacity at the rate of 5 per cent per annum and upto a limit of 25 per cent in a plan period without the requirement to obtain a "Substantial Expansion" licence under the IDR Act, provided further that they are not dominant in the line of manufacture and also that the capacity utilisation in the concerned undertaking is satisfactory. The concerned industrial undertaking should also ensure that in the process of utilising this facility, the foreign exchange earnings by way of exports are substantially higher than any outgo by way of royalty, dividends etc., if any.

4. It is clarified that any increase in capacity for the reasons mentioned above will be over and above the normal permissible limit of 25 per cent in production over the authorised/licensed capacity.

5. In the case of dominant undertakings relating to the particular sphere of dominance, applications will be considered by a Task Force to be constituted in the Department of Heavy Industry which will consist of representatives of other Departments concerned including a representative from the Deptt. of Company Affairs. An application submitted to the Task Force will be deemed to be an application submitted under the MRTP Act and no separate application under Section 21 of the said Act would be necessary in such cases.

ANNEXURE

LIST OF SPECIFIED ENGINEERING INDUSTRIES ALLOWED FOR AUTOMATIC GROWTH

1. Automobile ancillaries.
2. Castings and closed die forgings.
3. Tractors.
4. Commercial vehicles.
5. Conveying equipment.
6. Diesel engines, pumps.
7. Cranes.
8. Earth-moving, mining and metallurgical equipment.
9. Hydraulic equipment.
10. Industrial machinery, including chemical plant and machinery.
11. Machine tools.
12. Textile machines.
13. Power transmission and distribution equipment (other than cables and wires).
14. Power transformers.
15. Switchgear.

.B. A Notification to give effect this decision issued on 5 September 1975 is reproduced in the next page.

NOTIFICATION

New Delhi, 5 September 1975

S.O. 474(E)/IDRA/29B/75/- In exercise of the powers conferred by sub-section (1) of section 29B of the Industries (Development & Regulation) Act, 1951 (65 of 1951), the Central Government hereby exempts from the operation of clause (d) of sub-section (1) of section 13 of the said Act and the rules made thereunder all industrial undertakings registered under the said Act or in respect of which a licence or permission has been issued under the Act and pertaining to any of the scheduled industries specified in the Schedule to this notification, to the extent of 5 per cent, per annum or 25 per cent in a Five Year Plan period, of the registered or licensed capacity of the industrial undertakings in one or more stages subject to the following conditions, *namely*:

- (i) the articles of manufacture shall not be an article specified in Schedule I to the notification No. 98E/IDRA/29B/73/1 dated 16 February 1973, of the late Ministry of Industrial Development (Department of Industrial Development);
- (ii) the investment in effecting such substantial expansion by the undertaking shall be met from its own sources without recourse to public financial institutions;
- (iii) if any scheme of substantial expansion involves import of capital equipment, it will be subject to such export obligations as may be specified at the time of approval of the import of capital equipment;
- (iv) the industrial undertaking does not have any foreign collaboration agreement containing restrictive clauses particularly in regard to exports;
- (v) the industrial undertaking shall be eligible for exemption only if the expansion proposed is in respect of any description of goods for which the industrial undertaking is not a dominant undertaking within the meaning of the Monopolies and Restrictive Trade Practices Act 1969 (54 of 1969).

2. This is in addition to and not in derogation of notification No. S.O. 98(E)/IDRA/29B/73/1, dated 16 February 1973, of the late Ministry of Industrial Development (Department of Industrial Development).

SCHEDULE

1. Automobile ancillaries.
2. Castings and closed die forgings.
3. Tractors.
4. Commercial vehicles.
5. Conveying equipment.
6. Diesel engines, pumps.
7. Cranes.
8. Earth-moving, mining and metallurgical equipment.
9. Hydraulic equipment.
10. Industrial machinery, including chemical plant and machinery.
11. Machine tools.
12. Textile machines.
13. Power transmission and distribution equipment
(other than cables and wires)
14. Power transformers.
15. Switchgear.

PRESS NOTE

UTILISATION OF RESULTS OF IN-HOUSE
R & D FOR COMMERCIAL EXPLOITATION*New Delhi, 21 August 1975*

Government have consistently recognised the importance of Research and Development (R & D) by both public and private industrial undertakings with a view to achieving self-reliance in technology. From time to time, questions have been raised whether an industrial undertaking which takes up in-house R & D will be permitted to utilise the results thereof for commercial purpose. It has also been brought out that unless an industrial undertaking has some assurance that it will be permitted to set up or expand capacity based on its R & D, entrepreneurs will not be prepared to invest in any meaningful R & D.

Government have considered the matter carefully and it is clarified that in so far as industrial undertakings, other than those coming within the purview of MRTP Act and foreign companies (as defined under FERA) are concerned, they would be allowed to set up capacity based on the results obtained by their R & D effort. While these undertakings would be required to obtain industrial licences in terms of existing statutory provisions, for the capacity being set up by them as a result of their own R & D efforts, such applications would ordinarily be allowed as a matter of course.

2. Where an industrial undertaking is covered by the MRTP Act or is a foreign company (as defined under FERA), it can undertake R & D in areas covered by Appendix I to the Industrial Licensing Policy Statement of 1973 and such proposals for setting up industrial capacity may be allowed by Government on merits.

3. If an undertaking is covered by the MRTP Act or is a foreign company and seeks to embark upon Research and Development activity in fields not covered by Appendix I to the Government's policy statement of February 1973, such undertakings will have to seek the prior approval of the Department of Science and Technology, before doing so. The Department of Science and Technology will consider such proposals in consultation with the concerned Administrative Ministry and the Technical Authorities concerned. The Department of Science and Technology will, thereafter, advise the party whether the proposed research meets with the approval of Government or not. If the approval of Government is obtained for the proposed R & D, the undertaking can proceed with research in that direction with the assurance that its application to set up capacity based upon the results thereof will ordinarily be allowed, subject to the priorities and policies of the Government.

PRESS NOTE

DELICENSING OF INDUSTRIES SET UP ON THE BASIS OF TECHNOLOGY DEVELOPED BY NATIONAL LABORATORIES

New Delhi, 7 March 1976

Government have examined measures to be taken to encourage commercial exploitation of technology developed by the National Laboratories in the country so that technological self-reliance can be successfully pursued. One such step in this direction is to exempt from the licensing provisions of the Industries (Development and Regulation) Act, any capacity which is established on the basis of a technology developed by a National Laboratory. Government have accordingly decided that henceforth industrial undertakings, other than those falling within the purview of the Monopolies and Restrictive Trade Practices Act and Foreign Exchange Regulation Act, which take up the manufacture of any item based on the technology developed by any of the laboratories established by the Council of Scientific and Industrial Research and laboratories approved by the Department of Science & Technology will be exempted from the licensing provisions of the Industries (Development and Regulation) Act. This facility will also be available in respect of sponsored research undertaken by such laboratories on behalf of industrial undertakings. This facility will however, be subject to the condition that the item of manufacture is not one reserved for development in public sector or small scale sector or governed by special regulations.

2. Any industrial undertaking which wishes to take up the manufacture of an article based on technology developed by an approved laboratory will be required to obtain a certificate from the Department of Science & Technology. It will be ensured that the technology in question is basic to the manufacture of the proposed product and not merely peripheral to it.

3. A notification under the provisions of the Industries (Development & Regulation) Act is being published separately to give effect to the above decision.

4. The question of extending this facility to undertakings falling within the purview of Monopolies and Restrictive Trade Practices Act and Foreign Exchange Regulation Act subject to certain conditions is separately under consideration and a further announcement in this regard will be made in due course.

N.B. A Notification issued on 25 March 1976 to give effect to this decision is reproduced as annexure to this appendix.

NOTIFICATION

New Delhi, 25 March 1976

S.O. 238(E)/IDRA/76: In exercise of the powers conferred by sub-section (1) of section 29B of the Industries (Development and Regulation) Act 1951 (65 of 1951), the Central Government hereby exempts from the operation of sections 11, 11A and 13 of the Industries (Development and Regulation) Act 1951 (65 of 1951), and the rules made thereunder all industrial undertakings pertaining to the manufacture of an article on the basis of technology developed by any of the laboratories established by the Council of Scientific and Industrial Research or approved in this behalf by the Department of Science and Technology of the Government of India, subject to the following conditions, *namely*:

- (1) The article of manufacture shall not be an article specified in Schedules I, III or IV to the notification No. 98E/IDRA/29B/73/1 dated 16 February 1973, of the late Ministry of Industrial Development (Department of Industrial Development), as amended from time to time.
- (2) The industrial undertaking does not fall within the purview of the Monopolies and Restrictive Trade Practices Act, 1969 (54 of 1969), or of the Foreign Exchange Regulation Act, 1973 (46 of 1973).
- (3) The industrial undertaking shall obtain a certificate from the Department of Science and Technology to the effect that the article proposed to be manufactured by it is on the basis of the technology developed by any of the laboratories referred to above.

2. This notification is in addition to and not in derogation of notification No. S.O. 98E/IDRA/29B/73/1, dated 16 February 1973, of the late Ministry of Industrial Development (Department of Industrial Development).

IMPORTANT INSTRUCTIONS FOR ENTREPRENEURS

Industrial licensing, foreign collaboration, capital goods and registration applications.

Industries Act Applications:

1. All columns of the applications should be duly filled in. Information should not be vague but specific and clear, to avoid unnecessary correspondence and delay.

(a) The applicant should ensure that in the context of the exemptions from licensing provisions of the Industries Act as indicated in the Appendix IV of the Guidelines, the proposed scheme calls for a licence under the Act and that registration with the technical authorities would not suffice.

(b) The applicants should give details and specifications of the items proposed to be manufactured by them. Annual capacity should be indicated both in quantity and value for each item.

(c) In the phased manufacturing (indigenisation) programme, details are to be given separately for landed cost of imported components and standard components bought out indigenously.

(d) In the case of existing undertakings applying for new articles or substantial expansion, a list of plant and machinery installed in the factory along with their broad specifications, value and date of installation should be furnished.

Foreign Collaboration Applications:

(a) Catalogues/illustrated literature relating to the items proposed to be covered under foreign collaboration should be furnished.

(b) Current CIF price of each model of machine proposed to be manufactured should be given.

(c) Foreign exchange balance sheet should invariably be worked out and given.

(d) A write-up on the standing of the foreign collaborator should be given, which should include their annual turn-over of the product, existing licensing arrangements in the world and volume of exports.

Capital Goods Applications:

(a) Advertisement procedure will not apply to the import of machinery mentioned in Appendix 80 of the Red Book (Vol. I). Where advertisement procedure will apply according to the ITC policy, a tabulated statement indicating the responses

received from indigenous manufacturers and reasons for non-acceptance of indigenous offers should be given.

Registration:

- (a) In regard to schemes of registration proposed to be implemented in Bombay Metropolitan Region, the applicants should, *alongwith their application*, obtain and forward a 'no objection certificate' from the State Director of Industries for the location of their unit or for expansion or diversification in Bombay Metropolitan Region.
- (b) In case of existing small scale unit seeking registration with DGTD due to natural growth, the application should invariably be forwarded through the *Director of Industries of the State*. The application should include a certificate from the Chartered Accountant certifying the details of the machinery installed alongwith the original purchase price.

GUIDELINES ON TECHNOLOGY

An essential feature of the industrial strategy is self-reliance in technology. Whereas over the years, a good R & D base has been developed in the national laboratories and in some of the industrial undertakings, it would be desirable that activities and efforts are co-ordinated for tackling priority tasks, and in subsequent transfer of technology.

2. A Technology Development Division has been established in the office of the Directorate General of Technical Development so as to bring about a total technological approach in co-ordination with Department of Science & Technology, CSIR, NRDC and other agencies. It is the endeavour of this Division to serve as a bridge in further closing the communication gap between industry and R & D, with a view to maximise development and use of indigenous technology. A technical Data Bank has been established in the office of the DGTD with the following objectives:-

- (a) analysis of on-going collaborations with imported technology and identifying gaps in technology in order to intensify efforts in the development of suitable technologies and know-how;
- (b) collection of information on indigenous technologies and their verification;
- (c) assessing the extent to which imported technologies have been absorbed and disseminating information on appropriate technologies for exports; and
- (d) providing information to entrepreneurs which will enable techno-economic evaluation of competitive bids.

3. Entrepreneurs and organisations are advised to inform the Technology Development Division of DGTD about the development of indigenous technologies which are available for transfer. These claims will then be verified through Evaluation Groups. The verification procedure will bear in mind the feasibility of commercialisation and techno-economic advantages of the technology. Advance registration of claims, followed by verification will not only enable adequate protection to indigenous technology but also will streamline the processing of applications for import of technology.

4. Processing of applications for foreign collaborations are often delayed because of inadequate presentation of the proposal. It will be advantageous if the entrepreneurs discuss in advance and seek guidance from the Technology Development Division of DGTD, before formulating and submitting proposals for foreign collaboration. This dialogue can be initiated after preliminary negotiations with the proposed collaborator have been completed and the party has obtained the letter of intent.

5. It is expected that entrepreneurs applying for foreign collaboration will explore alternative sources of technology, evaluate them from a techno-economic point of view and furnish reasons for preferring a particular technology. The lack of this information may result in delay in providing a proper appreciation to the Government for consideration. The entrepreneurs are accordingly advised to give special attention to providing information on competitive bids evaluating the techno-economic aspects with adequate reasons for selection of a particular technology.

6. A number of proposals for extension of existing foreign collaboration agreements are also frequently received. In most of these cases, the applicants fail to provide information on steps taken for absorption and assimilation of the imported technology or adequate justification for the induction of new technology. In such cases, it is advised that the applicant companies may intimate in advance to the DGTD at least a year before the termination of the collaboration agreement indicating the need for extension of the collaboration. This will enable the organisation to carry out a detailed assessment of the status of the imported technology and the measures to be taken for absorption of the technology. This advance examination will give a clear picture of the need for extension of collaboration agreements.

PART II
GUIDELINES FOR INDUSTRIES

METALLURGICAL INDUSTRIES

A. FERROUS

ELECTRIC FURNACE INDUSTRY

Present Status

1.1. As on 1.2.1976, there were 202 licensed/registered electric furnace units for production of mild steel ingots/billets. Their total capacity is 43.2 lakh tonnes per annum. Apart from these units, there are several units which have taken effective steps for the installation of arc furnaces, etc., but the capacity of such units could not be recognised for purposes of granting licences, as the effective steps were not taken prior to 31.10.1973. If all such capacities are recognised, the total electric furnace capacity for steel ingots, may be higher. Further additional capacity is likely to be available as a result of the recent diversification allowed to some steel castings units to manufacture steel ingots.

1.2. Out of the above mentioned 202 units, about 100 units have gone into production, but generally the capacity utilization on an average appears to be as low as 30%, while some of them are reported to have been closed down also. In the past, availability of power and ferrous scrap were constraints in achieving higher production. Recently the electric furnace units have been suffering mainly on account of diminished scope of marketability of their products.

Production

2.1. The total production of ingot by the electric furnace units during the last 3 years was as under:

1972-73	6.4 lakh tonnes
1973-74	7.1 lakh tonnes
1974-75	6.7 lakh tonnes

Future Scope

3.1. In view of the constraints of inadequate availability of essential inputs, particularly scrap, Government policy is to consolidate the capacity already authorised and to regulate further growth of the industry in keeping with the availability of essential inputs. Full utilization of capacity of the electric furnace units already licensed is not likely to be achieved in the near future. Also in May 1975, Government decided in principle to licence a few units on selective basis for production of steel by the side blown converter method. By this method steel is produced by conversion of pig

iron and the requirement of power is less than electric furnace units. It is proposed to evaluate possibility of production of steel by this method after the units licensed/to be licensed go into production.

3.2. In the above circumstances, there is no scope at present for licensing additional capacity in the electric arc furnace industry for steel making. However, Government have commissioned a study by professional consultants of this industry. They may also suggest scope for diversification of these units. After studying their report, proposals for diversification of production may be considered on merits.

ALLOY AND SPECIAL STEELS

Present Status

1.1. The total demand for alloy and special steels was earlier expected to be about 7.9 lakh tonnes by 1980. Recent studies by SAIL indicate that this figure may have to be revised downward. As against this, the total capacity already licensed is about 5 lakh tonnes.

1.2. In order to increase the availability of certain grades of carbon, special and alloy steels, the electric furnace units which had earlier been permitted to manufacture mild steel ingots were authorised in May 1974 to diversify their production into the following categories of steel:

- Electrode quality carbon steels;
- Forging quality carbon steels;
- Cold heading quality carbon steels;
- Hardening and tempering quality carbon steels;
- Carbon, carbon-manganese and silico-manganese qualities of spring steel;
- Carbon tool steels;
- Case hardening quality carbon steels;
- Free cutting quality carbon sulphur steels.

1.3. It is expected that the existing major alloy steel producing units both in the public and private sectors and the electric furnace units, which have been permitted to diversify their production into the aforementioned categories of low alloy, free machining and special steels, can adequately meet the domestic requirements through efficient utilization of their capacity and installation of balancing equipment.

Future Scope

2.1. In view of the above position, there is no scope for further licensing of alloy and special steels. However, diversification proposals for the manufacture of special and alloy steels could be considered on merits from existing alloy steel producers.

SPONGE IRON

Present Status

1.1. Taking into account the liquid steel production by electric furnaces by the end of Fifth Plan period and the scrap availability in the country, it was estimated that the requirement of sponge iron by 1978-79 would be of the order of 7 lakh tonnes. As against this, letters of intent have been issued to State Sector undertakings for a total capacity of 6.4 lakh tonnes. Recently, a letter of intent has been issued to a private sector party for one lakh tonnes capacity.

1.2. So far there has been no commercial scale production.

Future Scope

2.1. Sponge iron can substitute scrap as a charging material to the electric furnace units producing steel. The capacity licensed for the electric furnace units is already more than 40 lakh tonnes. If the licensed capacity goes into operation fully, there will be demand for more charging material and the availability of scrap for steel making by electric furnace units may become a problem. It is, therefore, necessary to develop production capacity for sponge iron.

2.2. In view of the above, there is scope for licensing of sponge iron capacity. Technically and economically viable units, preferably utilizing indigenous technology and non-coking coal as reductant, will be preferred.

PIG IRON

Present Status

1.1. The demand of pig iron in 1980 is estimated at 21.88 lakh tonnes. As against this, the existing capacity in the integrated steel plants and other units is 15.87 lakh tonnes.

Production

2.1. Actual production mainly depends on the surplus availability of hot metal after meeting the steel making requirements of the integrated steel plants. The actual production during the last 3 years was as follows:

1972-73	14.1 lakh tonnes
1973-74	15.9 lakh tonnes
1974-75	16.1 lakh tonnes

Future Scope

3.1. The demand for pig iron does not seem to have developed as expected. It is considered that the domestic demand for pig iron will be met from the capacity already available. At present, there is no scope for further licensing. However, proposals for production of special categories, such as, low phosphorous pig iron, etc., may be considered on merits.

STEEL MAKING THROUGH SIDE-BLOWN CONVERTOR PROCESS

1.1. In May 1975, Government decided to allow private sector units to manufacture steel, by conversion of pig iron by the process known as 'side-blown convertor process', developed by the National Metallurgical Laboratory, Jamshedpur. The main advantages of this process are:

- (i) Low capital investment.
- (ii) Usage of pig iron in place of scrap, the availability of which is uncertain.
- (iii) Requirement of power is less, as compared with electric furnace units.
- (iv) It is labour-intensive.
- (v) Requisite equipment is available indigenously.

Present Status

2.1. Initially, the licensing will be confined to the three units, which have already got the permission for the exploitation of the process from the National Research Development Corporation, for a capacity of 10,000 tonnes per annum each. One of these units has since been issued a letter of intent on 28.10.1975 for the manufacture of 10,000 tonnes of steel billets by side blown convertor process.

Future Scope

3.1. Depending upon the performance of these three units, the question of licensing further capacity in the private sector would be considered. It is also proposed to licence a unit in the public sector, using this process. At present, it is not proposed to licence any other units.

REROLLING INDUSTRY

Present Status

1.1. The last comprehensive study of the private sector rerolling industry was made by the Technical Committee on Re-assessment of Capacity. In its report submitted in July 1966, the Technical Committee had assessed the capacity of billet rerollers at 27.6 lakh tonnes, of scrap rerollers at 7.3 lakh tonnes and of other (unassisted) units at 12 lakh tonnes on double shift basis (total: 46.9 lakh tonnes). This capacity has further gone

up as a result of modernisation/improvements effected by the existing units as well as the capacity created under the provisions of the liberalised industrial licensing policy, which was in force upto 31.10.1973. New units have also come up both in the small scale and medium sectors, although they were not encouraged. Similarly several small scale units have crossed into the medium sector by virtue of their investment in plants and equipments having exceeded small scale limit. Some of the integrated steel plants also make bars, rods, structurals, sections, which are the main products of the rerollers.

Production

2.1. The production of billet rerollers and other rerollers during the last 3 years was as under:

1972-73	843,396 tonnes
1973-74	728,107 tonnes
1974-75	726,600 tonnes

The above figures do not include the production by small scale rerolling units using rerrollable scrap and billets from electric furnace units obtained from the open market.

Future Scope

3.1. As will be evident from production figures above, the capacity of the existing units has been considerably under-utilised. In the past, this was mainly owing to inadequate availability of raw materials—billets and scrap and other essential inputs like power, etc. Recently, the main difficulty of the industry is with regard to marketing of their products. As against the estimated demand of about 30 lakh tonnes of bars, rods, etc., in 1978-79, the total capacity already available is nearly double this figures. Recent studies show that the demand may even be less.

3.2. For light and medium structurals and some special profile sections like wheel rim, lock ring sections, etc., there has been a gap between demand and availability in the country. With a view to fill up this gap, some of the units have recently reported successful production of light rails, special automobile profile sections, etc.

3.3. Considering that there is already a large unutilised capacity, there is no scope for encouraging fresh capacity. Diversification proposals to manufacture light/medium structurals, and special profile sections from the existing rerolling units may, however, be considered on merit. Their proposals for fresh capacity for rerolling may also be considered if economic viability, marketability, and special considerations like

backwardness of a particular region, need for captive capacity on consideration of need for ensuring qualities for particular/special requirements of the units, transport problems, etc., justify creation of such fresh capacity.

COLD ROLLED STRIPS

Cold rolled steel strips find application in a wide range of industries ranging from automobiles, bicycles, transformers and industrial boilers to appliances like typewriters, calculators, etc. The variety of requirements in size, thickness, temper, surface condition, etc., is, therefore, quite large. It is difficult to make an assessment of the requirements of each category of strips separately, and their future scope for licensing. However, broadly, the position is as follows:

BOX STRAPPINGS AND BALING HOOPS

Present Status

1.2. The demand in 1980 for box strapping and baling hoops is estimated at 67,200 tonnes. The capacity already established for box strappings and baling hoops is not separately identifiable as several schemes are composite in nature. However, sufficient capacity has been created for box strapping/baling hoops. Also polypropylene box strapping/baling hoops are popular in use and hence, to some extent, they are meeting the demand for steel box strapping and baling hoops.

Future Scope

1.3. In the above circumstances, there is no scope for further licensing.

MILD STEEL COLD ROLLED STRIPS

Present Status

1.1. As against the estimated demand of 196,600 tonnes by 1980, capacity licensed/covered by letters of intent/registration is 266,600 tonnes. Some of the letters of intent issued for production of cold rolled strips have yet to be implemented. On the other hand, some capacity has been set up when this industry was exempted from the licensing provisions. The first stage of Bokaro Steel Ltd., which envisages a capacity of 575,000 tonnes of strips is expected to be completed by about 1977.

Future Scope

2.1. In the above circumstances, there is no scope for licensing of fresh capacity at present.

OTHER COLD ROLLED STRIPS OF MEDIUM CARBON, HIGH CARBON AND ALLOY STEEL STRIPS INCLUDING STAINLESS STEEL STRIPS

Present Status

1.1. The demand for these strips is estimated at 47,100 tonnes by 1980. As against this, capacity covered by licences/letters of intent/registration is 100,680 tonnes.

Future Scope

2.1. The position regarding the progress made in the implementation of the licences/letters of intent issued is reviewed from time to time. Discussions are also held with the representatives of the units. If at any time it is found that adequate progress had not been made by these units, the question of revoking their licences/letters of intent and licensing of further units could be considered. At present, there is, however, no scope for further licensing. Proposals for diversification into sophisticated categories of strips from the existing units could be considered on merits.

WIRE DRAWING INDUSTRY

Present Status

1.1. As against an estimated demand of 808,000 tonnes by 1980, the licensed capacity is 715,776 tonnes. Letters of intent for a capacity of 46,200 tonnes have also been issued.

Production

2.1. Production during the last three years was as follows:

1972-73	241,263 tonnes
1973-74	230,454 tonnes
1974-75	220,400 tonnes

Future Scope

3.1. Although it would appear from the figures of demand and licensed capacity that there is some gap to be covered, considering the following, there is no scope for further licensing in this field:

(a) The capacity of units which have been granted carrying on business licences, has been approved on the basis of either the best year's production of the last 3 years as available or the minimum economic capacity (single shift). A Technical Committee has been set up to assess the capacities of all the wire drawing units, so that, if necessary, the capacity licensed on the above basis can be suitably revised. The precise position about the capacity installed in these units would be known

after the assessment of their capacities is made by the Technical Committee.

(b) Captive capacities have been sanctioned by the Directorate General of Technical Development in the past without reference to the Department of Steel. In the case of several units engaged in the manufacture of ACSR stranded wires, bolts and nuts, wire ropes, cables, electrodes, etc., total capacity available against these sanctions will have to be assessed.

(c) In addition, a capacity of about 8 lakh tonnes mostly in mild steel wires, plain or coated is understood to be available with the small scale sector units.

(d) Sufficient capacities have been permitted within the over all capacities indicated above to cater to the requirements in all categories of wires including special, alloy and stainless steel wires.

3.2. In view of the position explained above, there is no scope for further licensing at present. However, applications for diversification to special, sophisticated types of wires from existing wiredrawing units may be considered on merits.

FERRO ALLOY INDUSTRY

FERRO CHROME/SILICO CHROME

Present Status

1.1. The demand had earlier been estimated at 68,150 tonnes per annum by 1980-81. The capacity licensed/covered by licences and letters of intent aggregates to 20,000 tonnes per annum.

Production

2.1. Production during the last few years was as under:

1972-73	2,200 tonnes
1973-74	10,546 tonnes
1974-75	12,009 tonnes

Future Scope

3.1. The demand estimate was related to production level of stainless steel. Considering that the earlier estimates of production of stainless steel during the Fifth Five Year Plan are not likely to materialise and the gestation period of this industry is only two years, there is no need for allowing further capacity at this stage.

FERRO SILICON

Present Status

1.1. The demand by 1980-81 was estimated at 77,300 tonnes and the capacity licensed is 96,600 tonnes.

Production

2.1. Production during the last three years was as follows:

1972-73	24,368 tonnes
1973-74	29,769 tonnes
1974-75	31,483 tonnes

The production has been sufficient to meet the indigenous demand.

Future Scope

3.1. The capacity created is expected to meet the demand by 1980-81. Hence, there is no scope for creation of fresh capacity.

FERRO MANGANESE/SILICO MANGANESE

Present Status

1.1. As against the estimated demand of 245,000 tonnes in 1980-81, capacity licensed/covered by letters of intent is 277,100 tonnes. Out of the capacity licensed, 119,000 tonnes is for export.

Production

2.1. Production during the last three years was as follows:

1972-73	159,651 tonnes
1973-74	147,860 tonnes
1974-75	148,377 tonnes

Future Scope

3.1. If exports materialise, as contemplated, there may be scope for creating additional fresh capacity. A review of export performance and indigenous requirements is likely to be undertaken after sometime.

3.2. At present, there is no scope for creation of additional capacity. However, proposals for diversification to different grades may be considered on merits.

OTHER FERRO ALLOYS

Present Status

1.1. The demand for Ferro Molybdenum, Ferro Tungsten, Ferro Vanadium, Ferro Titanium, Ferro Silico-Zirconium, Ferro Boron, was estimated at 1,158 tonnes by 1976-77. Capacity covered by licences/letters of intent is 1,880 tonnes.

Production

2.1. Production during the last three years was as follows:

1972-73	434 tonnes
1973-74	206 tonnes
1974-75	400 tonnes

Future Scope

3.1. Considerable installed capacity is claimed by existing units which have recently been granted COB licences. If higher production is required, the existing units could be permitted fuller utilisation of their capacities. Creation of fresh capacity is also not supported because the imported concentrates in some of these ferro alloys are of very high value.

3.2. There is no scope for licensing fresh capacity for ferro alloys. However, proposals for fuller utilisation of capacities/diversification from any of the ferro alloy units may be considered on merits.

STEEL CASTINGS

1.1. Steel Castings constitute an essential input for all engineering industries. The growth of this industry is closely linked with the growth of the engineering units may be considered on merits.

Present Status

2.1. There are 51 units in production in the organised sector with a total installed capacity of 169,000 tonnes per annum.

2.2. The capacity covered by industrial licences is 306,000 tonnes per annum and letters of intent have been issued for a capacity of 68,000 tonnes per annum. The production in the last 3 years was as under:

1973	68,000 tonnes
1974	66,000 tonnes
1975	62,500 tonnes

2.3. Current annual imports of steel castings in rough and unfinished form are about Rs. 3.5 crore. These are mostly special types of castings not yet manufactured in the country. Besides, alloy steel castings in finished form as components are being imported for chemical, petrochemical and cement industries, fertiliser plants, etc.

2.4. Export of steel castings during the last two years has been as under:

1973-74	Rs. 5.9 lakhs
1974-75	Rs. 24.5 lakhs

2.5. This is a power-based industry and large blocks of power are used in the scrap melting operation. The fall in demand for general steel castings has led to under-utilisation of capacity in the industry.

Future Scope

3.1. The draft Fifth Plan targets for capacity and production for 1978-79 have been projected as 250,000 tonnes and 230,000 tonnes per annum respectively. Having regard to the steps taken to implement the approved schemes, it is expected that a capacity of 270,000 tonnes per annum will be available by 1978-79.

3.2. Most of the existing capacity is for general purpose carbon steel castings, which is considered to be adequate. Sufficient capacity has also been approved for alloy steel castings. There is, at present, no scope for licensing new units in this field. However, the existing steel foundries manufacturing general steel castings are being permitted to diversify their activities to produce special castings such as alloy steel castings, stainless steel castings, corrosion resistant castings, etc. for better utilisation of installed capacity.

3.3. Some of the steel casting units are equipped to produce high quality steel castings such as radiographic quality steel castings, valve castings, special alloy steel castings, etc.

3.4. There is need for updating the technology and methods used by the steel castings industry. Foreign collaboration proposals may be considered for manufacturing special castings being imported at present.

CAST IRON CASTINGS (including Alloy Iron Castings)

Present Status

1.1. The capacity covered by licences/registration is 597,000 tonnes and letters of intent have been issued for a capacity of 129,000 tonnes per annum. There are 78 units in production with a total installed capacity of 410,000 tonnes per annum. Besides, there are a number of small scale units manufacturing grey iron castings. In addition, there are a number of captive foundries.

1.2. The production in the organised sector during the last 3 years was as under:

1973	160,000 tonnes
1974	180,000 tonnes
1975	179,000 tonnes

1.3 The imports of iron castings in rough form during the last three years were as under:

1972-73	Rs. 16.50 lakhs
1973-74	Rs. 55.96 lakhs
1974-75	Rs. 124.77 lakhs

1.4. Besides some alloy iron and high duty iron castings required by chemical, cement and fertiliser plants, etc. are being imported in finished form as components.

Future Scope

2.1. The Task Force set up by the Planning Commission had estimated the total requirements of iron castings by 1978-79 at 18 lakh tonnes.

2.2. Excepting the production of captive foundries, merchant foundries produce mainly general types of iron castings such as cast iron sleepers, man-hole covers and other types of sanitary castings. Additional capacity is required for heavy duty automotive castings, alloy iron castings and machine tool grade castings and for setting up of high production mechanised foundries.

2.3. Foreign collaboration may be considered for automotive and alloy iron castings on merits.

2.4. The major raw materials are foundry grade pig iron and hard coke which are available indigenously.

2.5. There are good prospects for export of castings, particularly machine tool grade castings and sanitary castings. The exports have been as under:

Item	Rs. in lakhs	
	1973-74	1974-75
Iron castings rough	13.8	76.9
Cast iron rain water pipes	4.0	23.5
Cast iron soil pipes	182.3	274.4
Cast iron pipe fittings	110.6	226.8
Others	17.7	31.3

SG IRON CASTINGS

1.1. S.G. iron castings are being increasingly used to substitute steel forgings and non-ferrous castings. Their use is economical even when high duty components are to be produced in small batches.

Present Status

2.1. The capacity covered by licences/registration is 13,600 tonnes per annum and letters of intent have been issued for an additional capacity of 12,200 tonnes per annum. There are 11 units in production with an installed capacity of 8,200 tonnes per annum.

2.2. The production during the last three years was as under:

1973	3,000 tonnes
1974	3,000 tonnes
1975	5,200 tonnes

2.3. The existing S.G. iron casting manufacturers are capable to produce quality castings and they have successfully substituted non-ferrous bronze bearings with S.G. iron bearings. Some of the units have also successfully substituted large number of forged steel components with S.G. iron components for automobile industry.

2.4. This is a power intensive industry. The main raw material is steel scrap.

Future Scope

3.1. The demand for S.G. iron castings is expected to increase due to its potential to replace forged steel components and non-ferrous components in the manufacture of commercial vehicles, tractors, earthmoving equipment, etc. There is scope for capacity in this industry.

MALLEABLE IRON CASTINGS

1.1. These are used in the manufacture of automobile components, components for railway rolling stock, heavy earth moving equipment, textile machinery and also as pipe fittings.

Present Status

2.1. The capacity covered by licences/registration is 30,700 tonnes and letters of intent have been issued for a further capacity of 18,200 tonnes per annum. There are 12 units in production with a total installed capacity of 23,080 tonnes per annum.

2.2. The production during the last three years was as under:

1973	19,000 tonnes
1974	20,000 tonnes
1975	17,000 tonnes

2.3. Malleable iron castings are also being imported in the form of finished components.

Future Scope

3.1. The existing units in this industry are producing malleable iron castings of different varieties, such as components for automobile industry, fittings for steel pipes and hardware for transmission line equipment, etc. It is expected that the demand for such castings will increase in future because of the substantial step-up in the production of commercial vehicles, scooters, motorcycles, etc. There is, therefore, scope for establishment of additional capacity in this field.

3.2. There are good prospects for export of malleable iron castings and pipe fittings.

AUTOMOTIVE CASTINGS LIKE CYLINDER BLOCK AND HEAD CASTINGS

Present Status

1.1. Some of the automobile manufacturers meet their requirement of cylinder block and cylinder head castings from their own captive foundries. Besides this, there is one independent automotive casting foundry

which is working to capacity. The total effective capacity available in this industry is of the order of 54,000 tonnes per annum.

1.2. An additional capacity covered by industrial licences and by letters of intent is 78,000 tonnes per annum.

1.3. The imports of iron castings in rough form during the past years have been as under:

1972-73	Rs. 16.50 lakhs
1973-74	Rs. 55.96 lakhs
1974-75	Rs. 127.77 lakhs

These figures, however, do not include cylinder blocks and heads, since these are being imported in finished condition.

Future Scope

2.1. The growth of this industry is closely linked with the growth of the automotive and allied industries. Based on the revised production forecast for commercial vehicles, tractors, cars, jeeps, diesel engines, etc, the requirements of cylinder block and cylinder head castings have been estimated at one lakh tonnes per annum by the end of the Fifth Plan period.

2.2. Against estimated requirements of one lakh tonnes per annum of automotive castings, the total approved capacity adds up to 157,000 tonnes. The progress made by the approved schemes will be watched before considering additional capacity during 1976-77.

STEEL FORGINGS

1.1. Steel forgings are vital in the manufacture of automotive and earthmoving equipment, industrial machinery and chemical and fertiliser equipment, etc.

Present Status

1.2. There are 66 units engaged in the manufacture of steel forgings with a total installed capacity of 2.04 lakh tonnes per annum. The total capacity covered by licences/letters of intent is 285,000 tonnes per annum.

1.3. The production of steel forgings during the last three years was as under:

1973	92,700 tonnes
1974	97,800 tonnes
1975	90,000 tonnes

The utilisation of capacity has been low since a substantial part of this is for open forgings, for which there is limited demand. There was also a drop in the demand for automotive forgings during 1975.

1.4. There is scope for export of steel forgings which

has now reached a level of about Rs. 100 lakhs per annum.

Future Scope

2.1. The draft Fifth Plan aims at a capacity target of 300,000 tonnes and a production target of 240,000 tonnes by 1978-79.

2.2. Steel forgings can be classified broadly as free/open forgings, closed die forgings and upset forgings. Most of the existing capacity is for free/open forgings, which is considered to be adequate. There is scope for additional capacity in the fields of sophisticated closed die forgings, which can be established through diversification by the existing units. Apart from this, new processes like pour forging, roll forging, etc. have been developed in other countries. Proposals for the manufacture of forgings using these processes may be considered on merits.

2.3. Foreign collaboration may be considered in selected cases, where advanced technology, especially for export production is required.

CAST IRON SPUN PIPES

Present Status

1.1. The capacity covered by industrial licences is 520,600 tonnes while additional letters of intent have been issued for a capacity of 75,000 tonnes per annum. There are nine units in production with a total installed capacity of 478,600 tonnes per annum.

1.2. The production during the last 3 years was under:

1973	250,000 tonnes
1974	287,000 tonnes
1975	280,000 tonnes

Future Scope

2.1. Although the requirements of spun pipes have not been accurately assessed, the capacity already installed has been adequate to meet the demand. On account of financial constraints, the budgets of public works departments for water supply and sanitation schemes have been affected, and this in turn has resulted in lower capacity utilisation.

2.2. All the existing units are producing grey iron spun pipes. The trend of demand in other countries is for ductile iron spun pipes, for which there is a considerable export market. Being capital intensive, the manufacture of ductile iron pipes is being encouraged by the existing manufacturers of spun pipes within their overall licensed capacity, with some additional balancing equipment. There is no scope for setting up new units during 1976-77.

STEEL STRUCTURAL FABRICATION

Present Status

1.1. There are at present 119 units in production with a total licensed/registered capacity of 452,000 tonnes per annum for fabrication of steel structurals. In addition, a number of schemes have been registered under liberalised licensing policy.

1.2. The production of steel structural fabrication during the last two years has been as under:

1974	155,800 tonnes
1975	120,000 tonnes

1.3. The main requirement of raw materials for this industry is steel plates and sections, which are available indigenously.

1.4. Exports of steel structural during the last two years, have been as under:

1973-74	Rs. 1.27 crores
1974-75	Rs. 2.63 crores

Future Scope

2.1. The demand for steel structural fabrication by the end of the Fifth Plan has been estimated at the level of 470,000 tonnes per year. In addition, there is a substantial capacity for structural fabrication in the small-scale sector. It would, therefore, be seen that the existing capacity is sufficient to cater to the entire requirements of the country by the end of the Fifth Plan.

For better utilisation of the installed capacity, firms engaged in the structural fabrication industry can take up the manufacture of heavy duty and sophisticated cranes like ladle cranes, soaking pit cranes, steel mill cranes, containers and large wharf cranes for ports etc. There is good scope for increasing exports provided total engineering services can be provided.

Steel Welded Tubes and Pipes

Bright Bars

Flexible Metallic Tubes

ERW Steel Tubes

Having regard to the capacities already available and those licensed/registered, no scope for licensing additional capacities exists in respect of the above mentioned four industries.

B. NON-FERROUS

ALUMINIUM

Present Status

1.1. The total capacity covered by industrial licences is 400,000 tonnes per annum. The present installed

capacity (7 units) is 250,000 tonnes per annum. This includes a capacity of 25,000 tonnes of M/s. Balco, a Public Sector Undertaking, who have commenced production in middle of 1975.

1.2. The production of aluminium during the last 3 years was as under:

1973-74	147,800 tonnes
1974-75	126,500 tonnes
1975-76	185,000 tonnes

The production of aluminium metal improved considerably during 1975-76, due to improvement in the power position. It is now possible to meet the domestic requirements of both EC and CG Grade aluminium. A start has also been made to enter the export field.

Future Scope

2.1. The draft Fifth Plan target for aluminium aims at a production of 370,000 tonnes by 1978-79. This will be achieved through the completion of the public sector project at Korba to its optimum capacity of 100,000 tonnes and also by expansion of the capacity of existing units in the private sector. The public sector project at Ratnagiri for a capacity of 50,000 tonnes will materialise in Sixth Plan period. During 1976-77, there is no scope for licensing additional capacity in this field. The major efforts during the current year will be to further improve utilisation of installed capacity through adequate arrangement of supply of power, raw material, other inputs and export generation of aluminium and aluminium semis.

COPPER

Present Status

1.1. Under the current policy, development of this industry is reserved for public sector.

1.2. Hindustan Copper Ltd., a public sector undertaking has an installed capacity of about 57,000 tonnes per annum, shared by 2 units, one at Ghatsila in Bihar and the other at Khetri in Rajasthan.

1.3. The production of blister copper during the last 3 years was as under:

1973-74	12,900 tonnes
1974-75	15,801 tonnes
1975-76	23,000 tonnes

1.4. The increase in production combined with all round efforts for material conservation and import substitution has resulted in reducing the import of copper metal.

Future Scope

2.1. The draft Fifth Plan target is to achieve a production of 45,000 tonnes of copper by 1978-79 through the utilisation of smelter capacities at Khetri in Rajasthan and Ghatsila in Bihar.

2.2. An accelerated programme for the development of mines to exploit the proved deposits is proposed to be undertaken. Another important project to be developed by Hindustan Copper Ltd., during the Fifth Plan is at Malanjkhand in Madhya Pradesh involving open cast mining. It will contribute about 23,000 tonnes of blister copper when fully developed. Other schemes being taken up during the fifth plan include:

1. Rakha Copper Project, Phase II
2. Mosaboni Mines Expansion
3. Surda Mines Expansion Scheme
4. Chandmari Expansion

ZINC

Present Status

1.1. Two units, one of Hindustan Zinc Ltd. in the public sector in Udaipur (Rajasthan) and another of Cominco Binani Zinc Ltd., in the private sector at Alwaye (Kerala) are engaged in the production of zinc with a total installed capacity of 38,000 tonnes per annum. Additional capacity of 57,000 tonnes is covered by industrial licences and 20,000 tonnes by a letter of intent.

1.2. The production during the last 3 years was as under:

1973-74	20,800 tonnes
1974-75	22,000 tonnes
1975-76	28,000 tonnes

1.3. The import figures for the last 3 years are given below:

1972-73	77,000 tonnes
1973-74	63,400 tonnes
1974-75	66,700 tonnes

With the improvement of indigenous production, the future import requirements will be substantially reduced.

Future Scope

2.1. The Fifth Plan target aims at production of 100,000 tonnes of zinc per annum by 1978-79. In the public sector, the existing smelter at Debari (near Udaipur, Rajasthan) is being expanded from a capacity of 18,000 to 45,000 tonnes per annum and a new smelter

of a capacity of 30,000 tonnes per annum is being established at Visakhapatnam (A.P.). These smelters are expected to be commissioned during the year 1976-77.

2.2. The smelters at Visakhapatnam and Alwaye are based on imported concentrates, while the Debari smelter is based on indigenous ores. Steps are being taken by Hindustan Zinc Ltd., to explore and exploit the ore deposits in Balaria, Baroizawarmala and Rajpura-Dariba (all in Rajasthan).

2.3. Under the current industrial licensing policy, future establishment of capacity for this metal would be in the public sector.

LEAD

Present Status

1.1. There is only one public sector unit, namely Hindustan Zinc Ltd., in production with an installed capacity of 6,000 tonnes per annum. The plant is being modernised and expanded to a capacity of 8,000 tonnes per annum of lead. The new zinc smelter at Visakhapatnam will also have a lead plant of 10,000 tonnes per annum capacity which is expected to be commissioned during 1977-78.

1.2. The production of virgin lead during the last 3 years was as under:

1973-74	2700 tonnes
1974-75	4100 tonnes
1975-76	5200 tonnes

In addition, a licence has been issued for the manufacture of secondary lead from battery scrap, etc. for a capacity of 31,500 tonnes per annum. This unit is already in production and its production during 1975-76 is estimated at 10,000 tonnes. With this measure of material conservation, it is expected that the import requirements of the metal could be gradually reduced.

1.3. The imports during last 3 years were as under:

1973-74	2700 tonnes
1974-75	4100 tonnes
1975-76	5200 tonnes

Future Scope

2.1. According to the draft Fifth Plan target, production of 20,000 tonnes of lead per annum is planned by 1978-79. Further increase in the capacity of lead will be considered depending on the progress of development of indigenous ore deposits. Under the licensing policy, development of this industry is reserved for the public sector.

ANTIMONY

Present Status

1.1. There is only one unit in the private sector with an installed capacity of 1000 tonnes per annum and its production during the last 3 years was as under:

1973-74	550 tonnes
1974-75	350 tonnes
1975-76	350 tonnes

1.2. Imports during last 3 years were as under:

1972-73	81.00 tonnes
1973-74	10.00 tonnes
1974-75	Nil

Future Scope

2.1. Demand of antimony metal is estimated to be around 1000 tonnes per annum by 1978-79. There is no scope for the creation of additional capacity during 1976-77.

SILICON

Present Status

1.1. At present, there is only one unit licensed for a capacity of 3000 tonnes per annum for the manufacture of silicon metal. The unit has gone into production of silicon metal of purity 98% min. during 1974. The production of silicon metal during 1975-76 is estimated at 600 tonnes. A letter of intent has been issued for another unit for a capacity of 1000 tonnes per annum.

1.2. Imports of silicon metal during the last 3 years were as under:

1972-73	1100 tonnes
1973-74	1400 tonnes
1974-75	540 tonnes

Future Scope

2.1. No final estimates of demand have been worked out. The progress of the above unit will be watched.

NICKEL

Present Status

1.1. There is, at present, no capacity for the manufacture of nickel in the country. The entire requirement is met through imports.

1.2. Import of nickel during the last 3 years was as under:

1972-73	2498 tonnes
1973-74	2922 tonnes
1974-75	4000 tonnes

In view of the increased production of cadmium, import is no more necessary. During 75-76, Hindustan Zinc Ltd. has commenced production of high purity cadmium.

Future Scope

2.1. The first major project for the production of nickel is programmed at Sukinda in Orissa in the public sector with a capacity of 4800 tonnes of nickel and 200 tonnes of cobalt per annum. The project is likely to materialise during the Sixth Plan period.

Future Scope

2.1. The production of cadmium metal is associated with the production of zinc. As such there is no scope for setting separate capacity for cadmium alone. The capacity already licensed will be adequate for the country's demand.

CADMIUM

SELENIUM

Present Status

1.1. The total capacity of 3 units holding industrial licences is 336 tonnes per annum. The present installed capacity is 125 tonnes per annum.

1.2. The production of cadmium metal during last 3 years was as under:

1973-74	41.00 tonnes
1974-75	56.00 tonnes
1975-76	50.00 tonnes

Present Status

1.1. Selenium is a high priced product and is manufactured as a bye-product in copper metal production. Indigenous production of selenium commenced in 1974 at Ghatsila in Hindustan Copper Ltd. smelter. The production during 1974-75 was 3050 kg and is expected to be about 3300 kg during 1975-76.

Future Scope

2.1. The production of selenium is so far confined to commercial grade suitable for glass and rubber industries. Efforts are being made to refine the commercial quality to high purity metal, which is required for sophisticated uses as power rectifiers.

1.3. The import figures for the last 3 years were as under:

1972-73	167.00 tonnes
1973-74	24.00 tonnes
1974-75	5.5 tonnes

PRIME MOVERS

DIESEL ENGINES

Present Status

1.1 Diesel Engines are used both for industrial and agricultural purposes. These can be broadly categorised as:

- (a) Stationary engines used in pumping sets, generating sets, compressors, etc. and
- (b) mobile engines used for traction.

1.2. There are 32 large and medium scale units with a capacity of 303,836 nos. per annum. Letters of intent for additional capacity of 150,500 nos. per annum have been issued.

1.3. The production during the last three years was as under:

	(Nos.)	(Rs.)
1973-74	145,954	6,296 lakhs
1974-75	110,500	6,800 lakhs
1975-76	120,000	9,300 lakhs

Besides, there is substantial production of small HP (upto 15 HP) diesel engines in the small scale sector, which is estimated to be of the order of 100,000 nos. annually. About 80 to 85% of the diesel engines produced in the country are below 20 HP. These are mainly used for agricultural pumping sets. There was a decline in the off-take of diesel engines produced in the organised sector, and hence the poor capacity utilisation of the industry. However, the major units whose products have found acceptance even in export markets are utilising the capacity at satisfactory levels.

1.4. Only a limited number of special types of high output engines are at present imported.

1.5. The exports of diesel engines (including spare parts) have been steadily increasing over the past few years as under:

1971-72	Rs. 330.04 lakhs
1972-73	Rs. 644.39 lakhs
1973-74	Rs. 812.74 lakhs
1974-75	Rs. 1910.92 lakhs

Future Scope

2.1. Having regard to the capacity already established, there is no scope for new entrepreneurs to enter the field of ordinary types of diesel engines. In order to cater to the needs of diesel engines with new technolo-

gical concepts, a letter of intent has also been issued for the manufacture of light weight high horse power engines. Proposals for diversification by the existing units for manufacture of advanced types of engines and light weight high horse power engines could be considered on merits.

30 to 100 HP (for Vehicular and Industrial Application)

2.2. All the manufacturers of vehicles, except one, have their own capacity for the manufacture of engines. Extension of capacity in this range will by and large correspond to the establishment of capacities for the production of vehicles. Besides, the capacity likely to materialise from the schemes already approved will substantially take care of the additional demand.

75 to 150 HP (Medium Speed Marine Engines)

2.3. In this range, adequate capacity exists in regard to diesel engines required for vehicular, tractor, marine and industrial applications. In view of the growing demand for diesel engines in this category, proposals from the existing manufacturers for diversification would be considered on merits. There is no scope for new units.

100 to 800 HP (for Heavy Earth-moving Equipment & Industrial Applications)

2.4. At present, there is only one unit specialising in the manufacture of engines in this range. Production from this unit has been as under:

1973-74	1711 nos.
1974-75	2524 nos.
1975-76	2700 nos.

The anticipated demand in this range is likely to be 6000 nos. per annum by 1978-79. Having regard to the increased requirements for these ranges of engines with the increased production envisaged in the construction equipment and allied sector, one more unit has been approved for engines of this range. There is no scope for additional licensing at present.

Above 800 HP (for Power Generation and Ships)

2.5. The present capacity in this range, which is in the public sector, is essentially for marine and industrial

application. Marine engines upto 10,500 HP are being produced. Engines under production are of 250 to 600 HP range and 600 to 1900 HP range. The third range is essentially for marine application only. One more range

of engines, *i.e.*, 500 to 3500 HP is covered by a letter of intent. In view of the limited demand of about 100 to 500 nos. engines per annum, there is no scope for any more units for diesel engines in this range.

ELECTRICAL EQUIPMENT

POWER AND DISTRIBUTION TRANSFORMERS

1972-73

Rs. 187.36 lakhs

1973-74

Rs. 124.27 lakhs

1974-75

Rs. 318.00 lakhs

Present Status

1.1. The capacity covered by Industrial licences is 240.42 lakh KVA per annum. At present, there are 33 units in production with an installed capacity of 221.7 lakh KVA. Further, letters of intent have been issued to various firms for a total capacity of 83.86 lakh KVA, thus making a total approved capacity of 324.28 lakh KVA. There are also a large number of units in the small scale sector manufacturing mostly distribution transformers.

1.2. The production during the last three years was as under:

1973	116.5 lakh KVA
1974	122.1 lakh KVA
1975	132.3 lakh KVA

The capacity utilisation during 1975 was around 60%.

Future Scope

2.1. According to the Fifth Plan, the demand for power and distribution transformers has been estimated at 200 lakh KVA per annum by 1978-79. The capacity so far approved is sufficient to meet the requirements during the Fifth Plan period. There is, however, some scope for manufacture of special types of flameproof dry type transformers, furnace transformers, rectifier transformers, booster transformers and reactors.

2.2. The plant and equipment for the manufacture of transformers is, by and large, available from indigenous sources except special types of testing and other equipment, which are to be imported. The main raw materials such as CRGO steel sheets, special insulating material and copper for winding wires are being imported.

2.3. Government has issued a Press Note on 12.3.1975 under which diversification for the manufacture of power and distribution transformers upto 220 KVA range have been permitted. It is expected that existing units would take advantage of this liberalisation and take up the manufacture of transformers up to 220 KVA within their overall licensed capacity.

2.4. There is good scope for export of power transformers. The exports during the last three years were as under:

CIRCUIT BREAKERS (Low Tension/High Tension)

Present Status

1.1. The licensed and installed capacity for L.T. circuit breakers is about 49,000 nos. per annum. Letters of intent have been issued for a capacity of 27,400 nos.

1.2. The licensed and installed capacity of HT circuit breakers is 16,000 nos. per annum and capacity covered by letters of intent is 5,545 nos.

1.3. In L.T. range, oil circuit breakers, air circuit breakers in metal clad and moulded types are being manufactured upto 3000 amps rating. H.T. circuit breakers are being manufactured in various voltage ratings of 11, 22, 33, 66, 110/132 kv having various breaking capacities. Efforts are also being made to manufacture 400 kv circuit breakers to meet the future requirements.

1.4. Materials used in the manufacture of circuit breakers include rolled steel sections, insulating materials, alloy steel, aluminium, copper sections, etc. which are indigenously available. The imported materials include special insulating materials, moulding powders, bimetal strips and copper.

Future Scope

2.1. The Development Council for Heavy Electrical Industries has estimated the annual demand by 1978-79 as follows:

1. 400 kv/200 kv/132 kv/110 kv breakers	600 nos.
2. 66 kv/33 kv/22 kv breakers.	2400 nos.
3. 11 kv breakers (including 3.3 kv) and 6.6 kv breakers.	12000 nos.
4. Low voltage breakers (200 A and above)	32000 nos.

2.2. Having regard to the need for modernisation and improvement of designs, well conceived schemes particularly for higher capacity circuit breakers, could be considered on merits.

2.3. Foreign collaboration for the manufacture of new types of circuit breakers of higher ranges/sophisti-

cated designs as well as for import of design and drawings for the same will be considered on merits.

ELECTRIC MOTORS

Present Status

1.1. The capacity covered by industrial licences is 66 lakh HP. At present, there are 32 units in production with an installed capacity of 62 lakh HP. Further, letters of intent have been issued for a total capacity of 3.7 lakh HP thus making a total approved capacity of 69.7 lakh HP. There are also a large number of units in the small scale sector manufacturing electric motors upto 20 HP.

1.2. The production during the last three years was as under:

1973	31.1 lakh HP
1974	32.0 lakh HP
1975	32.5 lakh HP

The capacity utilisation in this industry during 1975 was around 50%.

Future Scope

2.1. The Fifth Plan targets of production of electric motors has been placed at 58 lakh HP by 1978-79. The total approved capacity covered by industrial licences/letters of intent is 69.7 lakh HP.

2.2. The capacity so far approved is, therefore, sufficient to meet the requirements during the Fifth Plan period. There is, therefore, no scope for creation of additional capacity. Schemes for manufacture of special types of motors such as flameproof motors, variable speed drive motors such as commutator motors and thyristor control DC motors, etc. will be considered on merit.

2.3. There is good scope for export of electric motors. The exports during the last three years were as under:

1972-73	Rs. 72 lakhs
1973-74	Rs. 141 lakhs
1974-75	Rs. 196 lakhs

2.4. The Government have issued a Press Note dated 12.3.1975 permitting diversification in the manufacture of electric motors. It is expected that many existing units would take advantage of this liberalisation and would take up the manufacture of new types of electric motors and ranges upto 1000 HP within their overall licensed capacity. This would enable them to utilise their existing installed capacity more effectively.

2.5. The plant and equipment for the manufacture of

electric motors, by and large, is available from indigenous sources except special types of testing equipment.

The main raw materials such as special insulating materials, bearings, copper for winding wires and conductors are being imported.

MOTOR STARTERS

Present Status

1.1. The present licensed and installed capacity for motor starters of various types is 792,110 nos. The capacity covered by letters of intent is 16,000 nos. This includes various types of motor starters such as direct-on-line starters, star-delta starters and oil immersed starters (ordinary as well as flame proof type). There are about 14 units in production all over the country.

1.2. The production during the last three years was as under:

1973	587,931 nos.
1974	585,908 nos.
1975	343,592 nos.

1.3. The indigenous raw materials include mild steel sheets and sections, certain insulating materials and copper strips. The imported raw materials include resistance wire/strips, virgin copper, stainless wire and bimetal strips.

Future Scope

2.1. At present the existing capacity is underutilised, because of low off-take. There is, however, scope for diversification for special types of motor starters like flame proof type, starters of higher capacity etc.

ELECTRIC FANS

Present Status

1.1. Electric fans are manufactured both in the large and smallscale sectors. The capacity covered by industrial licences and registration is 32.93 lakh nos. There are 19 units in the organised sector with a total installed capacity of 29.93 lakh nos.

1.2. The production of units in the organised sector during the last three years was as under:

1973	21.0 lakh nos.
1974	23.3 lakh nos.
1975	22.0 lakh nos.

Future Scope

2.1. The production target indicated in the draft Fifth Plan is 37.5 lakh nos. of electric fans for general utility purposes.

2.2. As the present installed capacity is not being fully utilised, there is no scope for creating further capacity in this industry.

2.3. However, there is a large world-wide demand for table fans of modern design and style fitted with time switching devices. Proposals for the manufacture of such fans for export will be considered on merits.

2.4. Indigenous know-how is available for the manufacture of all types of fans. The plant and equipment for production of fans is available from indigenous sources. The main raw materials such as winding wires, dynamo grade steel, insulation materials ball bearings, etc. are all indigenous.

Exports

3.1. Indian electric fans, particularly ceiling fans, have been well received in foreign markets and there has been steady increase in exports.

3.2. The exports during the last three years were as under:

1972-73	Rs. 254 lakhs
1973-74	Rs. 243 lakhs
1974-75	Rs. 677 lakhs

GLS LAMPS

Present Status

1.1. The capacity covered by industrial licences is 2130.7 lakh nos. At present, there are 14 units in production of GLS lamps with an installed capacity of 1605.7 lakh nos. Further letters of intent have been issued for a total capacity of 660 lakh nos., thus making a total approved capacity of 2790.7 lakh nos. There are also large number of units in the small scale sector manufacturing GLS lamps upto 100 watts.

1.2. The production during the last three years was as under:

1973	1234 lakh nos.
1974	1267 lakh nos.
1975	1283 lakh nos.

The capacity utilisation in the year 1975 was about 80% in this industry.

Future Scope

2.1. The Fifth Plan target of production of GLS lamps is placed at 1000 lakh nos. by 1978-79. The total approved capacity covered by industrial licences/letters of intent is 2790.7 lakh nos. Many existing units have also applied for expansion of their capacity under the scheme of fuller utilisation of the installed capacity.

2.2. The exports of GLS lamps during the last three years were as follows:

1972-73	5.36 lakh nos.
1973-74	6.05 lakh nos.
1974-75	44.07 lakh nos.

2.3. The Government have issued a Press Note on 25.10.1975 on the liberalisation of the investment procedure for stimulating production. Under this liberalisation, it has been decided to exempt from normal industrial licensing provisions, proposals from medium entrepreneurs to set up industrial capacities for GLS lamps based on indigenous equipment and local raw materials and also for fuller utilization of the existing capacity.

2.4. Hindustan Machine Tools, Hyderabad have been licensed to manufacture machinery for GLS lamps, various components such as tungsten filament wires and coils, lead-in-wires, glass rods, glass tubings, glass shells, lamp caps, etc. Substantial progress has been made in implementation of this Scheme.

FLOURESCENT LAMPS

Present Status

1.1. There are 9 units in production and their licensed capacity is 165.17 lakh nos. In addition, letters of intent have been issued for a capacity of 101.50 lakh nos.

1.2. The production during the last three years was as under:

1973	116 lakh nos.
1974	155 lakh nos.
1975	170 lakh nos.

Future Scope

2.1. The draft Fifth Plan target of production for fluorescent lamps has been put at 170 lakh nos. by 1978-79. The total approved capacity covered by industrial licences/letters of intent is 266.67 lakh nos. The demand of fluorescent lamps has been steadily increasing. It is, however, felt that the capacity already approved through industrial licences and letters of intent would be sufficient to meet the increasing demand.

2.2. The plant and machinery for the manufacture of fluorescent lamps is imported. The main components are tungsten filament coils, lead-in-wires and fluorescent powder.

TUNGSTEN FILAMENTS

Present Status

1.1. The capacity covered by industrial licences for the manufacture of tungsten filament coils is 4820 lakh nos. At present, there is only one firm in production of

tungsten filament coils with an installed capacity of 600 lakh nos. In addition, there are four units, who have facilities to manufacture filament coils for captive use. Their installed capacity is around 560 lakh nos. Additional letters of intent have been issued for a total capacity of 1950 lakh nos, adding to a total approved capacity of 7330 lakh nos.

1.2. The production during the last three years was as under:

1973	760 lakh nos.
1974	1020 lakh nos.
1975	1000 lakh nos.

This does not include the production of units with captive capacity.

Future Scope

2.1. Taking into account the demand for GLS lamps, fluorescent tube lamps and other electric lamps, the demand for tungsten filament coils by 1978-79 is expected to be of the order of 9000 lakh nos. There is thus scope for considering additional capacity provided the schemes envisage manufacture from wire rods of 6 m.m.

2.2. The machinery for the manufacture of filaments is mostly imported. The main imported raw material items are filament wires and rods.

LAMP CAPS

Present Status

1.1. The capacity covered by industrial licences is 3800 lakh nos. At present, there are four units in production with an installed capacity of 3200 lakh nos. Further, letters of intent have been issued for a capacity of 5000 lakh nos., thus making a total approved capacity of 8800 lakh nos.

1.2. The production during the last three years was as under:

1973	2160 lakh nos.
1974	2400 lakh nos.
1975	2500 lakh nos.

Future Scope

2.1. Considering the demand for GLS lamps, fluorescent tube lamps and other electric lamps, the demand for lamp caps by 1978-79 is expected to be of the order of 9000 lakh nos. Progress of implementation of approved schemes will be watched before considering additional capacity.

2.2. The plant and machinery for the manufacture of lamp caps is mostly imported. Two types of materials

are used for the manufacture of lamp caps i.e. aluminium and brass strips. Use of brass caps is permitted for products for export.

MOLYBDNEUM WIRES

Present Status

1.1. At present, there is one firm in production with an installed capacity of 2400 Kgs. Further, a letter of intent has been issued for a capacity of 2000 Kgs.

1.2. The production for the last three years was as under:

1973	2320 Kgs.
1974	3780 Kgs.
1975	3200 Kgs.

Future Scope

2.1. The capacity approved so far is considered sufficient to meet the requirement of molybdneum wires by 1978-79.

LEAD-IN-WIRES

Present Status

1.1. The capacity covered by industrial licences is 15,160 lakh nos. At present, there are two units in production supplying lead-in-wires to other lamp manufacturers and their capacity is 4100 lakh nos. Besides, there are five units manufacturing lead-in-wires for their captive use. Further, letters of intent have been issued for a total capacity of 1000 lakh nos. thus making a total approved capacity of 16,160 lakh nos.

1.2. The production during the last three years was as under:

1973	2400 lakh nos.
1974	2410 lakh nos.
1975	3100 lakh nos.

Future Scope

2.1. Considering the demand for GLS lamps, fluorescent lamps and other electric lamps such as miniature lamps, special types of lamps etc., the demand for lead-in-wires by 1978-79 is expected to be of the order of 1500 lakh nos. The programme of implementation of the approved schemes would be watched before considering additional capacity.

2.2. The plant and machinery for the manufacture of lead-in-wires is wholly imported. All the raw materials such as dumet wires, oxygen free copper wires, monel wires, manganese nickel wires, nickel plated iron wires, nickel plated copper tin alloy wires, etc. are being imported.

LT & HT POWER CAPACITORS FOR POWER FACTOR IMPROVEMENT

1973-74	42	950.00
1974-75	34	750.00

Present Status

1.1. The capacity covered by industrial licences is 1,247,000 KVAR and installed capacity is 1,092,000 KVAR. Letters of intent have been issued for further capacity of 437,500 KVAR and a number of schemes are under implementation. The production during the last three years was as under:

1973	552,080 KVAR
1974	649,446 KVAR
1975	693,715 KVAR

Future Scope

2.1. The Development council has estimated the demand for power capacitors at 1,660,000 KVAR per annum by 1978-79. Having regard to the capacity already approved, there is limited scope for the setting up of new units. Expansion of existing units on viability consideration or for exports could be considered on merits.

2.2. Proposals for foreign collaboration for the manufacture of power capacitors with poly-propylene dielectric will be considered on merits.

2.3. For the manufacture of these items, two main imported raw materials—capacitor paper and chlorinated diphenyl are required. Aluminium foil is also required but it is available indigenously.

INDUSTRIAL FURNACES

1.1. Industrial furnaces cover a wide range of items which can be grouped as—(1) Electric Arc Melting Furnaces, (2) Induction Melting Furnaces and Induction Heating Equipment and (3) Heat Treatment Furnaces.

ELECTRIC ARC MELTING FURNACES

Present Status

2.1. Electric arc melting furnaces are currently manufactured by 5 firms with an estimated installed capacity of 80 nos. per annum. The total licensed capacity is 100 nos. per annum. The present production covers furnaces of wide capacity range. A public sector unit which has recently started production can manufacture furnaces upto 100 tonnes capacity.

2.2. The production during the last 3 years was as under:

	Nos.	Rs. lakhs
1972-73	22	439.45

No import of this item has taken place during the last 2/3 years. Exports are nominal.

Future Scope

3.1. The existing licensed/installed capacity is considered adequate to meet the projected demand in 1978-79. There are also constraints of inadequate availability of power and scrap which have adversely affected the demand for such types of furnaces. This has led to a fall in production in 1974-75 and a further fall is anticipated in 1975-76. There is, thus, no scope for further licensing in this field.

INDUCTION MELTING FURNACES AND INDUCTION HEATING EQUIPMENT

Present Status

1.1. There are currently 3 manufacturers of mains frequency type induction melting furnaces and one manufacturer of medium frequency type with a total licensed capacity of 34 nos. per annum. In addition, 2 letters of intent have been issued for a capacity of 27 nos. covering medium and high frequency induction melting furnaces. The current installed capacity is assessed at 20 nos. per annum.

1.2. The production during the last 3 years was as under:

	Nos.	Rs. lakhs
1972-73	15	178.07
1973-74	15	198.78
1974-75	16	147.35

The estimated annual level of imports is 5/6 furnaces valued at Rs. 35/40 lakhs.

1.3. In the field of induction heating equipment, which is used for reheating materials for further operations or heat treatment, there are two units confined to mains and medium frequency types only. Recently a letter of intent has been issued for a capacity of 18 nos. covering mains, medium, high and radio frequency induction heating equipment. The production during the last 3 years was as under:

1972-73	3 nos.
1973-74	2 nos.
1974-75	2 nos.

Future Scope

2.1. There is an increasing demand for induction heating equipment and additional capacity will be encouraged in this field.

2.2. Manufacture of these items could be taken up as a measure of diversification by electrical equipment manufacturers. However, new medium scale units can also enter this field. In taking up the manufacture of medium and high frequency types of equipments, it will be necessary to undertake the manufacture based on static converter (inverter) and the manufacturing programme should include the manufacture of these essential items also.

2.3. Foreign collaboration proposals will be considered on merits.

HEAT TREATMENT FURNACES

Present Status

1.1. There are 9 units in production with an installed capacity of Rs. 10 crores. The licensed capacity is Rs. 13.5 crores. In addition, 3 more units have been issued letters of intent covering a total capacity of Rs. 4 crores. In addition to the units in the organised sector, there are a number of units in the smallscale sector manufacturing heat treatment furnaces.

1.2. The production during the last 3 years was as under:

1972-73	Rs. 230.70 lakhs
1973-74	Rs. 450.00 lakhs
1974-75	Rs. 540.27 lakhs

During 1975-76, the production is estimated at Rs. 600 lakhs.

1.3. Imports are restricted to specialised types like those used in laboratories, electronics industry, etc. The current annual level of imports is of the order of Rs. 70/75 lakhs.

Future Scope

2.1. The panel for furnace industry had estimated the demand of various types of furnaces by 1978-79 as under:

Steel Plant Furnaces	Rs. 10 crores
General Heat Treatment Furnaces	Rs. 10 crores

Excepting a few types, furnaces are tailor-made to suit specific requirements. It is essentially a design-oriented industry and establishment and development of a good design section is vital for the growth of this industry. Additional capacity in this field for specialised types of furnaces can be considered on merits.

8.2. Proposals for foreign collaboration for special types of furnaces can be considered on a selective basis.

WINDING WIRES

(Enamelled, Paper/Cotton/Silk etc. covered)

Present Status

1.1. The capacity covered by industrial licences and registrations with the Directorate General of Technical Development is 47,360 tonnes per annum. In addition, capacity covered by letters of intent is 8,198 tonnes. The total installed capacity of winding wires is 39,800 tonnes per annum.

1.2. The production during the last three years was as under:

1973	21,055 tonnes
1974	17,261 tonnes
1975	18,369 tonnes

The utilisation of capacity in this industry is around 50 per cent.

1.3. Import of winding wires, except for very fine gauges, is not permitted.

Future Scope

2.1. The Task Force set up by the Planning Commission had estimated the requirements of winding wires by 1978-79 at 31,000 tonnes per annum. This includes the requirements of paper covered wires/strips also. As the existing units are running below their licensed capacity, it is not necessary to set up new units. However, proposals for diversification by the existing units for the manufacture of different types of wires within their existing capacity will be considered on merits.

2.2. Indigenous know-how is available for the manufacture of all types of winding wires. Except for very high speed wire drawing and enamelling equipment, most of the plant and machinery are available indigenously.

POWER CABLES

(PVC/PILC and Cross-linked Polyethylene Cables)

Present Status

1.1. The capacity covered by industrial licences is 27,589 km per annum. Besides, letters of intent have been issued for an additional capacity of 5000 km. There are 11 units engaged in the manufacture of power cables with an installed capacity of 23,850 km per annum.

1.2. The production during the last three years was as under:

1973	21,578 km
1974	16,002 km
1975	13,710 km

The bulk of the production consists of PVC power cables, as cables upto 6.6 KV have been substituted by PVC power cables in place of paper insulated lead sheathed cables. There has been a decline in the indigenous use of PILC cables and the production is mostly for exports.

Future Scope

2.1. The task force had estimated that the annual requirements of power cables will be about 35,000 km by 1978-79. The actual demand would depend on the progress of power generation, transmission and distribution programmes. Having regard to the capacity already approved and the progress of implementation of the various schemes, there is some scope for licensing of additional capacity, but the need for diversification appears to be more imminent, so that the existing cable manufacturers can switch over to the types now required. The manufacture of power cables with copper conductors is not encouraged unless it is for export purposes. Power cables produced for domestic use are to be based on aluminium conductors.

2.2. Proposals for foreign collaboration for the manufacture of cross-linked polyethylene cables could be considered on merits.

PVC/VIR CABLES

Present Status

1.1. There are 27 units engaged in the manufacture of these cables with an installed capacity of 12,810 lakh core meters against a total licensed capacity of 13,380 lakh core meters. Letters of intent have been issued for an additional capacity of 1280 lakh core meters.

1.2. Production during the last three years was as under:

1973	6,111 lakh core meters
1974	4,492 lakh core meters
1975	3,714 lakh core meters

The overall utilisation of capacity is around 30%.

1.3. These are cables of small current rating which are mainly manufactured in the small scale sector by a number of units. The manufacture of house wiring cables is reserved for development in the small scale sector. On account of this reason, the capacity utilisation of units borne on the books of the Directorate General of Technical Development is low.

1.4. Import of small quantities of specialised cables for high frequency and high temperature applications has been permitted in the past.

Future Scope

2.1. The Draft Fifth Plan target aims at achieving capacity of 12,500 lakh core meters by 1978-79. Having regard to the installed capacity in the large as well as the small scale sector, no further creation of capacity in this industry will be encouraged during 1976-77. The production of specialised cables can be taken up by the existing manufacturers through diversification.

ALL ALUMINIUM CONDUCTORS/ ALUMINIUM CONDUCTORS STEEL REINFORCED

Present Status

1.1. The licensed/registered capacity is 116,765 tonnes per annum, out of which, a capacity of 113,115 has been installed. There are 46 units in production; their production during the last three years was as under:

1973	58,000 tonnes
1974	28,000 tonnes
1975	40,000 tonnes

1.2. Besides, there are a large number of units in the small scale sector engaged in the manufacture of these conductors. Their capacity is also quite substantial.

1.3. The principal raw materials required are E.C. grade aluminium, galvanised and high tensile steel wires. Both these materials are available from indigenous sources.

Future Scope

2.1. According to the draft Fifth Plan, the demand for AAC/ACSR conductors by 1978-79 would be of the order of 170,000 tonnes per annum. Having regard to the under-utilisation of the existing installed capacity there is no scope for creation of additional capacity in this industry during 1976-77. Foreign Collaboration in this industry is also not permissible.

2.2. AAC/ACSR conductors upto 19 strands are reserved for manufacture in the small scale sector.

2.3. Most of the wire drawing and stranding equipment for this industry is available from indigenous sources.

X-RAY EQUIPMENTS

Present Status

1.1. There are four units in the organised sector with a total licensed capacity of Rs. 345 lakh per annum for manufacture of X-ray equipments including X-ray tubes. One unit in the organised sector has commenced production of industrial X-ray equipments since May 1974.

1.2. The production during the last three years was as under:

1973	Rs. 197 lakhs
1974	Rs. 327 lakhs
1975	Rs. 333 lakhs

1.3. Import/Export figures of X-ray equipments including X-ray tubes during the last three years were as under:

<i>Year</i>	<i>Imports (Rs. lakhs)</i>	<i>Exports (Rs. lakhs)</i>
1972-73	149.72	4.53
1973-74	155.35	4.81
1974-75	141.81	8.46

1.4. X-ray equipments upto and inclusive of 500 mA capacity are banned for import as the entire demand is being met from indigenous production.

Future Scope

2.1. The existing capacity is sufficient to meet most of the demand. However, proposals from existing manufacturers for manufacture of X-ray equipments higher than 500 mA capacity will be considered on merits. There is need for production of certain accessories for the X-ray equipments presently being manufactured in the country, e.g. motor driven X-ray tubes, automatic spot film device with tilting arrangements, attachments like planigraphy device, cassette changers etc.

2.2. One of the major components namely X-ray tubes, is being manufactured by Bharat Electronics Ltd. for X-ray equipments upto and inclusive of 500 mA capacity.

2.3. Proposals for foreign collaboration for updating technology would be considered on merits.

MICA PAPER AND MICA PAPER BASED INSULATING MATERIALS

Present Status

1.1. At present, there is no firm licensed to manufacture mica paper and mica paper based insulating material. Letters of intent have been issued to some firms for the manufacture of these products. The total capacity covered through letters of intent is 5,700 tonnes for mica papers and 1,800 tonnes for mica paper based insulating material.

Future Scope

2.1. Mica paper based insulating materials are used for large rating electrical rotating machines. The present requirement of insulating materials with mica paper is

around 100 tonnes per annum, which may go up in future, depending upon the demand for large rating electrical rotating machines. There is also a trend in the international market to switch over to insulating materials manufactured out of mica paper. There is thus scope for the export of mica paper as well as mica paper based insulating materials. Applications from entrepreneurs would be considered on merits, after watching the progress of the implementation of the letters of intent issued so far.

DRY BATTERY CELLS

Present Status

1.1. There are 12 units engaged in the manufacture of dry batteries with an installed capacity of 12,910 lakh cells. The capacity covered by industrial licences is 14,710 lakh cells per annum. In addition, letters of intent have been issued for a capacity of 2300 lakh cells per annum.

1.2. The production during the last three years was as under:

1973	6315 lakh cells
1974	6318 lakh cells
1975	5200 lakh cells

The utilisation of capacity in 1975 in this industry was slightly over 40%.

Future Scope

2.1. The draft Fifth Plan put the production target for dry cells at 13,000 lakh nos. and capacity of 17,000 lakh nos. by 1978-79.

2.2. Since the capacity utilisation in this industry has been low, there is no scope for further licensing.

Exports

3.1. The exports during the last three years were as under:

1972-73	Rs. 106 lakhs
1973-74	Rs. 88 lakhs
1974-75	Rs. 114 lakhs

STORAGE BATTERIES

Present Status

1.1. There are a wide variety of lead acid storage batteries-the more important being automotive batteries, train lighting cells, traction cells, etc., which are required for diverse uses.

1.2. The total production in the organised sector during the last three years was as under:

1973	12.8 lakh nos.
1974	13.8 lakh nos.
1975	14.1 lakh nos.

Automotive Batteries

2.1. There are nine units with a total capacity of 17.937 lakh nos. In addition, letters of intent have been issued to the extent of 9.205 lakh nos. There are also some units in the small scale sector, mainly engaged in reconditioning. The small scale sector is in a position to meet the replacement requirements of batteries to the extent of 10 lakh nos.

Train Lighting Cells

2.2. There are five firms with a licensed capacity of 2.74 lakh nos. Letters of intent have been issued to cover a capacity of 20,000 nos.

Stationary Cells

2.3. The main demand for stationary cells is from telephone industry. The capacity licensed is 2.17 lakh nos., while letters of intent have been issued for a capacity of 50,000 nos. cells.

Traction Cells

2.4. The total licensed capacity is 38,300 nos. of cells and the capacity covered by letters of intent is 60,000 nos.

Miscellaneous Batteries

2.5. These include the batteries used in miners' cap lamps, laboratories and for defence purposes. The licensed capacity is 2.30 lakh nos.

Future Scope

3.1. The draft Fifth Plan target aims at a production of 16 lakh nos. of automotive batteries by 1978-79. Considering 70% efficiency in this industry, a capacity of 20 lakh nos. of automotive batteries is required. Adequate capacity has already been approved for domestic market. Applications for export oriented schemes for automotive batteries will, however, be considered on merits.

3.2. As the requirement of train lighting cells is not expected to be more than the capacity already approved, there is no scope for further licensing.

3.3. For industrial type batteries, the demand is estimated at 12 lakh nos. There is scope for creation of additional capacity for these batteries which include stationary, traction, and miscellaneous batteries. As it is

not advisable for new entrepreneurs to set up capacity for industrial batteries only, proposals for expansion of the existing units for manufacture of these types of batteries could be considered on merits.

Export of Storage Batteries

4.1. The export of the storage batteries during the last three years was as under:

1972-73	Rs. 180 lakhs
1973-74	Rs. 192 lakhs
1974-75	Rs. 456 lakhs

MIDGET ELECTRODES OR CARBON RODS FOR DRY CELLS

Present Status

1.1. There are at present two units manufacturing midget electrodes with an installed capacity of 3250 lakh nos. out of this 2500 lakh nos. is for captive consumption. Production of midget electrodes during the last three years was as follows:

Year	lakh nos.	Rs. lakhs
1973	3160	109
1974	2910	94
1975	2530	91

1.2. Imports of midget electrodes during the last three years were as follows:

Year	lakh nos.	Rs. lakhs
1972-73	790	17.8
1973-74	600	11.6
1974-75	1480	56.5

Future Scope

2.1. The present installed capacity for dry cells is 12,910 lakh nos.; production during 1975 was 5200 lakh nos. About 13,000 lakh nos. of dry cells are likely to be manufactured by 1978-79. For this production, about 14,000 lakh nos. of midget electrodes would be required.

2.2. Twelve schemes including expansion of one of the existing units covering a total capacity of 30,700 lakh nos. have been approved. It would be necessary to watch the progress of these schemes with a view to ensuring that adequate capacity is built up to meet the anticipated demand.

CINEMA ARC CARBONS

Present Status

1.1. There are at present four units in production with an installed capacity of 180 lakh pairs. Two new units with a total capacity of 50 lakh pairs have been approved recently. Production of cinema arc carbons during the last three years was as follows;

<i>Year</i>	<i>lakh pairs</i>	<i>Rs. lakhs</i>
1973	81	179
1974	82	165
1975	103	180

1.2. Imports of cinema arc carbons of special type during the last three years were as follows:

<i>Year</i>	<i>pairs</i>	<i>Rs. lakhs</i>
1972-73	51,000	1.88
1973-74	56,000	2.65
1974-75	15,000	2.80

Future Scope

2.1. It has been estimated that the requirements of cinema arc carbons would rise to about 125 lakh pairs by 1978-79. Sufficient capacity to cover this demand has already been established.

2.2. Technology for manufacture of cinema arc carbons is available from Council of Scientific and Industrial Research and National Research Development Corporation. Two of the existing companies are manufacturing cinema arc carbons on the basis of technology developed by National Research Development Corporation.

2.3. Plant and equipment for manufacture of cinema arc carbons is indigenously available.

WELDING ELECTRODES

Present Status

1.1. There are 20 units in production with a licensed capacity of 5327 lakh running metres. In addition, the capacity under implementation is 2030 lakhs running metres.

1.2. The production during last three years was as under:

1973	3600 lakh running metres.
1974	3940 lakh running metres.
1975	3400 lakh running metres.

The under utilisation of capacity in this industry was due to shortage of rimming quality steel wire rods/billets and lack of demand due to general shortfall in structural industry.

1.3. Imports of welding electrodes are restricted to special purposes electrodes and the data for imports and exports for last three years is as under:

<i>Year</i>	<i>IMPORTS</i>		<i>EXPORTS</i>	
	<i>Quantity (tonnes)</i>	<i>Value (Rs. lakhs)</i>	<i>Quantity (tonnes)</i>	<i>Value (Rs. lakhs)</i>
1972-73	162.80	20.00	2571	45.74
1973-74	254.13	18.60	2292	43.58
1974-75	91.07	24.13	5052	161.41

Future Scope

2.1. The draft Fifth Plan aims at the production of 5500 lakh running metres of welding electrodes by 1978-79. It is estimated that the capacity already created together with the capacity which is likely to be available from the approved schemes will be adequate to meet the expected demand by 1978-79. There is no scope for licensing additional capacity for general purpose electrodes. The manufacture of special electrodes could be taken up as a diversification programme by the existing units.

3.1. Proposals for foreign collaboration for the production of special purpose welding electrodes could be considered on merits.

4.1. Efforts in this sector will be directed towards optimum utilisation of installed capacity by augmenting production and through diversification.

GRAPHITE AND CARBON ELECTRODES AND ANODES

Present Status

1.1. Graphite electrodes are required in the production of steel and alloy steel by electric furnaces and graphite anodes are required in the electrolytic production of caustic soda and potassium chlorate, perchlorates electrolytic manganese dioxide and electro-thermal production of phosphorous and silicon.

1.2. There are at present two units manufacturing graphite electrodes and anodes, one at Durgapur and the other at Bangalore, with a total installed capacity of 10,850 tonnes. The production of graphite electrodes and anodes during the last three years was as under:

<i>Year</i>	<i>Electrodes</i>		<i>Anodes</i>		<i>Total</i>	
	<i>tonnes</i>	<i>Rs. lakh</i>	<i>tonnes</i>	<i>Rs. lakh</i>	<i>tonnes</i>	<i>Rs. lakh</i>
1973	4,020	297	646	100	4,666	397
1974	6,987	806	658	126	7,645	932
1975	6,828	800	1440	286	8,268	1086

1.3. As indigenous production of graphite electrodes and anodes was not sufficient, considerable quantities were imported for meeting the requirements of electric steel furnace industry and caustic soda and other industries.

Future Scope

2.1. The demand for electrodes and anodes is closely linked with the growth of electric furnace steel and alloy steel industries and the caustic soda industry. It is estimated that about 20,000 tonnes of electrodes would be required by the steel, alloy steel and other industries by 1978-79 and about 4,000 tonnes of anodes would be required by the caustic soda and other industries.

2.2. Additional capacity to the tune of 39,450 tonnes has been approved; out of this a capacity of 34,000

tonnes is covered by four new units and the balance of 5,450 tonnes is for substantial expansion of the existing unit at Bangalore. Progress of implementation of the approved schemes will be watched before considering proposals for additional capacity during the year. It would therefore be necessary to ensure adequate availability of power while selecting a location for electrode/anode plant.

2.3. Technology for manufacture of electrodes and anodes is available by horizontal transfer from one of the existing units; however, foreign collaboration in this field is permitted on merits.

2.4. Plant and equipment required for this industry is by and large available from indigenous sources but some of the machines for machining of electrodes and anodes, instrumentation and other specialised machines are required to be imported.

CARBON BLOCKS FOR ELECTRICAL MACHINERY BRUSHES

Present Status

1.1. There is at present one unit with an installed capacity of 180 tonnes manufacturing metallised and electro-graphitised carbon blocks required by the electric carbon brush industry. Production of resin bonded carbon blocks is expected to be taken up during 1976. Three more schemes covering a capacity of 270 tonnes of various types of carbon blocks for electrical brushes have been approved.

1.2. The production of metallised and electro-graphitised carbon blocks during the last three years was as follows:

Year	Metallised carbon blocks (Qty. tonnes)	Electro- graphitised carbon blocks (Qty. tonnes)	Value (Rs. lakhs)
1973	61.6	Nil	33.01
1974	57.5	Nil	34.96
1975	19.7	4.6	19.84

1.3. The imports of carbon blocks for manufacture of electrical brushes and import of carbon brushes during the last three years were as follow:

Year	Carbon Blocks		Carbon Brushes	
	Qty. (lakh nos.)	Value (Rs. lakhs)	Qty. (lakh nos.)	Value (Rs. lakhs)
1972-73	7.2	61.27	6.3	4.76
1973-74	38.4	112.93	9.4	8.04
1974-75	21.5	155.60	1.5	3.92

1.4. The main raw materials required for carbon blocks are calcined petroleum coke, natural and synthetic graphite, lamp black, synthetic resins, metal powders and coal tar pitch.

Future Scope

2.1. Carbon brushes are an essential input in the electrical machinery industry. The demand for carbon blocks for electric brushes is likely to go up with the development and growth of electrical industry.

2.2. Sufficient capacity for carbon blocks has already been approved and there does not appear to be any scope for new schemes in this industry.

ELECTRONIC INDUSTRY

The total production of the Electronics Industry during 1975 is estimated to be Rs. 364 crores as compared to Rs. 301 crores in 1974.

these projects imports of raw material will be cleared only on the basis of regular export performance, except for the first few months.

(Rs. in crores)
Production during
1974 1975

1. Entertainment and Mass Communication	78	84.50
2. Telecommunication Equipment	70	97.00
3. Aerospace & Defence Equipment	47	49.00
4. Computers, Controls & Instruments	34	58.50
5. Components	72	75.00
Total	301	364.00

CONSUMER ELECTRONICS

1.1. The present production of consumer electronic equipment and their future demand are indicated in Annexure I.

RADIOS

Present Status

1.1. The total licensed capacity in the organised sector is 31.6 lakh nos. The production of radios in the country during the last two years was as follows:

Item	(production in lakh nos.)	
	1974	1975
Radio Receivers (including car radios)	34.70	25.49

The manufacture of low cost radio receivers, below an ex-factory price of Rs. 200/- is reserved for the small scale sector.

Future Scope

2.1. Domestic radio receivers are a de-licensed item. Car radios, AM/FM and IC radios can find export markets and there is scope for further licensing in this area for these items but with very substantial export commitments. Regarding IC radios, composite proposals with foreign collaboration will be supported, provided there is an overall appreciable foreign exchange earning and the import of ICs is standardised and regulated by the Department of Electronics. For

TELEVISION RECEIVERS

Present Status

1.1. The approved capacities for television receivers in the organised sector and the small scale sector are 140,000 nos. and 184,300 nos. respectively. The production of television receivers during the last two years was:

1974	75,744 nos.
1975	93,513 nos.

Future Scope

2.1. With the prospects of the industry coming out with low cost TV receivers, a demand approaching 300,000 receivers per annum by the end of Fifth Plan is likely. There is no scope for creating fresh capacity.

TAPE RECORDERS

Present Status

1.1. A capacity of about 782,380 nos. has already been approved for tape recorders (including car stereo tape recorders) in both the organised and small-scale sectors. Production has been low due to the non-availability of basic components like tape decks, micro-motors etc. However, with indigenisation of components like tape decks progressing, production is now picking up. Actual production in 1974 and 1975 was 35,110 and 50,297 nos. respectively.

Future Scope

2.1. It is expected that by the end of the Fifth Plan period, the demand for tape recorders will be around 200,000 nos. per annum for the local market. Efforts are being made to ensure that the approved capacity is realised. There is no scope for creating fresh capacity.

AMPLIFIERS AND PUBLIC ADDRESS SYSTEMS

Present Status

1.1. At present, the approved capacity both in the organised and small scale sectors taken together is 229,350 nos. The production during 1974 and 1975 was 107,468 nos. and 119,052 nos. respectively.

Future Scope

2.1. By the end of the Fifth Plan period, demand is expected to increase to 300,000 nos.

2.2. This item is reserved for manufacture in the small scale sector. At present there are a large number of units in the small scale sector. They are likely to increase their existing capacities to meet the anticipated demand for both mono and stereo amplifiers. Additional approvals on a very limited scale can be provided for small scale units. There is also some scope for intercommunication equipment of the kind required for use in large plants, marshalling yards, etc. For this purpose also preference will be given to small scale units.

RECORD PLAYERS AND RECORD CHANGERS

Present Status

1.1. The total approved capacity both in the organised and small scale sector is 41,800 nos. The production of record players and record changers during the last two years was as under:

1974	127,930 nos.
1975	138,201 nos.

Future Scope

2.1. By the end of Fifth Plan period domestic demand is expected to increase to 200,000 nos. per annum. An export target of 50,000 nos. by the end of Fifth Plan period has also been fixed. There is some scope for approval of a few new parties in the small and medium scale sector.

HEARING AIDS

Present Status

1.1. Manufacture of hearing aids is reserved for the small scale sector. A capacity of 60,640 nos. has been approved for production of this item. The production in 1975 was about 25,000 nos.

Future Scope

2.1. The demand of hearing aids is expected to go upto 100,000 nos. per annum by 1978-79. There is a need for inducting technically competent parties into this area.

ELECTRONIC TEACHING AIDS

Present Status and Future Scope

Electronic teaching aids constitute an area where little has been done so far and there is scope for further licensing for these items to medium scale indigenous

companies. This is a sector which requires close interaction with educational institutions and where the market has essentially to be created. A good marketing infrastructure would be an asset. Manufacture of electronic games and toys may be considered preferably in the small-scale sector with exports.

ELECTRONIC CALCULATORS

Present Status

1.1. A large number of licences/approvals have been issued for manufacture of calculators. The total approved capacity is 183,600 nos.

Future Scope

2.1. As it is expected that demand will be met by the existing capacity there is no scope for further licensing in this area. There is some scope for programmable calculators, electronic cash registers and electronic accounting and invoicing machines, which existing units can take up on the basis of approved phased manufacturing programme, and new units with adequate R & D capabilities may apply.

MINI COMPUTERS

Present Status

1.1. Limited licences for the manufacture of a specific number of mini computers by entrepreneurs committing to meet all the foreign exchange requirements of their programme out of their own foreign exchange earnings, or on the basis of 100% export, have been approved. Licences for dedicated micro processors for on-line applications, data loggers, peripheral controllers, cash registers etc., have also been approved during the current year.

Future Scope

2.1 There is scope for further licensing for meeting the requirements for priority application areas e.g., process control operations in industry, and other dedicated applications which make minimal demands on foreign exchange. No foreign collaboration is envisaged for the programme.

PERIPHERALS FOR COMPUTERS

Present Status

1.1. Licences have been given for computer peripherals such as, low speed magnetic tape units, alpha-numeric displays, data entry systems based on cassettes tape drives, floppy disks, non-impact printers, etc. Manufacture of disk drives based on an export-oriented programme with foreign collaboration have also been approved.

Future Scope

2.1. Scope for new manufacturing programmes to cover the demand profile indicated at Annexure II, exists. Foreign collaboration can be considered on merits for specialised items like high speed line printers, magnetic tape units, disk drives.

INDUSTRIAL ELECTRONICS

The field of Industrial Electronics can be broadly divided into the following categories:

TELEMETRY, TELECONTROL AND DATA LOGGING SYSTEMS

Present Status

1.1. This is an area where system design and marketing capabilities as well as close liaison with the user play a vital role. Telemetry and telecontrol find applications in a wide variety of areas e.g., power generation, transmission and distribution, oil and gas pipe lines, railway electrification, microwave links and aerospace. Data logging systems will find increasing application in the power sector and in process industries like steel, petrochemicals, fertilisers, with a trend towards computerisation where a large number of channels are used. At present, a demand is emerging for such systems in the power system control areas, especially by the various State Electricity Boards. There is, however, still a lack of awareness on the part of prospective users about such systems. At present this market is not being served by local sources. There is, therefore, a need to build up system design and applications engineering capabilities in this area. Some import of technology in terms of hardware, software, as well as systems design know-how may be necessary for rapid development of this sector.

Future Scope

2.1. It is difficult to make an accurate assessment of demand since a great deal will depend upon marketing. Nevertheless, it is felt that the demand for telemetry and telecontrol equipment over the Fifth Plan period is likely to be around Rs. 25 crores. In addition, there is likely to be a demand of Rs. 3-4 crores per annum for data logging systems by the terminal year of the Fifth Five Year Plan. Adequate capacity (545 systems per annum, including 400 nos. of the simple frequency shift keying type of systems) has been approved in the area of telemetry and telecontrol. The progress of implementation of the approved schemes has however, been slow.

2.2. In the area of data logging systems, there is a scope for further licensing. Marketing needs to be

developed, particularly in the steel, fertiliser and petrochemicals sectors.

2.3. Foreign collaboration may be permitted on merits on special grounds on sophisticated technology or for establishing predominantly export-oriented units.

VARIABLE SPEED DRIVES AND OTHER EQUIPMENT USING HIGH POWER SCRs/DIODES

Present Status

1.1. This is an area which has been growing at a relatively fast rate. Furthermore, new applications have been emerging with the availability of low cost semiconductor devices of high performance. In this country, the demand is primarily for high power drives, initially for use in steel mills, rubber, paper textile and cement plants. In addition, there is significant use of such equipment in railway traction. Modernisation of the existing plants will generate considerable replacement market for this type of equipment. The present total approved capacity of 12,000 drives covers various ratings.

Future Scope

2.1. The demand for drives is expected to be primarily in the power range of 100 KW and above. It is estimated that the demand for various drives using SCRs/SRs excluding motors, would be of the order of Rs. 30 crores for the entire Fifth Plan period. The break up of the demand for different types of electronic controls for speed drives is given in Annexure III. There is limited scope for further licensing of capacity in this area.

2.2. Foreign collaboration on a selective basis can be considered.

ELECTRONIC AND ALLIED INSTRUMENTATION FOR INDUSTRY

Present Status

1.1. In the area of electronic and allied instrumentation for industry there is an increasing trend towards the use of electronic controls, viz., electronic transducers for pressure, level, flow, etc. together with electronic indicating and non-indicating controllers. The present production of electronic instrumentation is estimated to be Rs. 5 crores out of the total production of instrumentation of Rs. 16 crores.

Future Scope

2.1. The demand for electronic and allied instrumentation in industry is estimated to reach Rs. 32 crores by 1978-79. It is expected that the production of electronic

instrumentation alone will increase to Rs. 16 crores by that time. There is scope for approving additional capacity for the manufacture of products broadly in the following categories:

Gas analysers, gas chromatographs, magnetic flow meters with electronic converters, infrared analysers, PH control systems, and other laboratory/analytical/measuring instruments etc.

2.2. Foreign collaboration can be considered on a selective basis.

CONTROL COMPONENTS

Present Status

1.1. Many basic control components, viz., transducers, servo-motors, technogenerators, are currently not being produced on a significant scale. The present licensed capacity for these items is around Rs. 75 lakhs per annum. In addition, letters of intent have been issued for a capacity of Rs. 110 lakhs per annum.

Future Scope

2.1. The demand estimates for different types of control components are given in Annexure IV. There is scope for licensing more capacity for these items. Proposals for foreign collaboration for a comprehensive range of items, can be considered on merits.

MEDICAL ELECTRONICS

Present Status

1.1. Manufacture of such equipment requires very close interaction with clinical usage to meet specifications and to ensure high reliability.

At present, there are 6 units in the organised sector and in the small scale sector manufacturing medical electronic equipment. Their production during 1975 was about Rs. 5 crores. The total imports of these equipments during 1974-75 were of the order of Rs. 1.5 crores.

Future Scope

2.1. The total requirements of medical equipment during the Fifth Plan period is estimated to be around Rs. 65 crores, out of which, 50% is expected to be accounted for by electromedical equipment like X-ray machines. The estimated requirements of typical individual items are given in Annexure V. Local production of medical electronic equipment taking into account the possibility of exports, could be of the order of Rs. 15 crores by 1978-79.

Items like internal pace makers, multichannel polygraphs etc. are not presently being manufactured in the

country. There is scope for establishing small scale as well as medium scale units in this field. Export possibilities also exist. The units need to have a sophisticated marketing and servicing infrastructure.

2.2. Foreign collaboration on a limited basis can be considered on merits.

ELECTRONIC INSTRUMENTS

Present Status

1.1. Electronic instruments may be broadly classified into five categories namely, test and measuring, analytical, nuclear, geoscientific and microwave. Production in 1974-75, both in the organised and the small scale sectors, is estimated to be Rs. 14.5 crores.

Future Scope

2.1. The projected demand by 1978-79 is Rs. 47 crores. The detailed break-up of the demand for such instruments of various categories is given in Annexure VI.

2.2. While a fairly large variety of instruments are currently being manufactured in the country, there are significant gaps in the production of VHF/UHF, microwave, analytical and geo-scientific instruments. Annexure VII gives a list of some typical electronic instruments most of which are not currently being manufactured in the country and for which there is scope for manufacture. Existing units as well as new units with the requisite infrastructure can be considered for licensing.

2.3. Foreign collaboration can be considered on merits for sophisticated items viz. UHF/microwave signal generators, oscilloscopes (with band-width greater than 50 MHz) sweep generators, etc.

ELECTRONIC COMPONENTS

1.1. Production of electronic components, both active and passive was approximately Rs. 75 crores in 1975. The projected demand for electronic components is Rs. 200 crores by 1978-79. The break-up of individual components in terms of production, approved capacity, and future demand is given in Annexure VIII.

1.2. The demand estimates given in Annexure VIII relate specifically to the local market and do not include direct or indirect export possibilities. As there should be flexibility with regard to the capacity for manufacture of components, the demand projections given may be treated as indicative. These demand projections could be enhanced by as much as 50-100% in planning effective capacity over the next five years.

1.3. In this area, the world trends indicate that economies of scale of production required increasingly large volumes and automated production techniques. It

is felt that the gaps in production in this field should be filled by fairly large units, with significant investment, so as to ensure proper quality control and a viable base for future growth.

1.4. For the development of the components sector, foreign collaboration may be needed in areas where there are technological gaps. Such collaboration would be considered on merits on the basis of tied exports. However, where a clear cut import substitution angle is evident and the local market is of adequate size, tied exports may not be insisted upon. Generally, applications would be considered preferably on a composite basis and primarily from the medium and large scale sector.

SEMICONDUCTOR DEVICES

Present Status

1.1. The present approved capacity, demand estimates for 1978-79 and the production during 1974 and 1975 of the various types of semiconductor devices are given in Annexure VIII.

Future Scope

2.1. In the semiconductor area including zener diodes, rectifiers, SCRs, transistors and ICs, adequate capacity has already been licensed and it is not proposed to license any fresh capacity unless it is primarily for exports. Since capital investments, particularly imported capital goods tend to be large in the area of MOS/LSI devices and LEDs, a Semiconductor Corporation in the public sector is being set up by the Department of Electronics to meet the internal demand and also possibly exports.

Despite the fact that a number of parties have been approved for the manufacture of integrated circuits, the progress made so far has not been particularly encouraging. While foreign collaboration on a general basis will not be permitted in this area, limited arrangements with foreign parties for purchase of specific elements of know-how could be considered. It may be further pointed out, that in the area of discrete devices, adequate production is yet to be established for power transistors, both in low and high frequency ranges.

Headers are reserved for the small scale sector and adequate capacity has already been approved. Since a number of approvals have been given for the manufacture of lead frames, there is no scope for further licensing of these products at present unless appreciable exports and special product ranges are envisaged.

ELECTRON TUBES

Present Status

1.1. There are different types of tubes in this cate-

gory, such as, transmitting tubes, microwave tubes, X-ray tubes, cathode ray tubes, TV picture tubes, photo and image intensifier tubes, gas filled tubes and receiving valves. The present licensed/installed capacity, additional capacity covered by letters of intent, production during the year 1974 and 1975 and the anticipated demand by 1978-79 are given in Annexure VIII.

Future Scope

2.1. There is no scope for further licensing, because existing as well as units recently approved, can fill the demand gap.

PASSIVE COMPONENTS

1.1. A number of schemes for the manufacture of these components had been approved but the progress of their implementation has been rather poor. The present status and the future scope of individual items falling in the category of passive components is given below:

CARBON FILM RESISTORS

Present Status

1.1. The present licensed capacity is 2250 lakh nos. with capacity approved in the small scale sector being 800 lakh nos. Against this, the installed capacity is 2,340 lakh nos. In addition, a capacity of 1,600 lakh nos. is covered by letters of intent and the total capacity earmarked for export is 615 lakh nos.

1.2. Production of this item during the last two years was:

1974	2115.8 lakh nos.
1975	1360.1 lakh nos.

Future Scope

2.1. There is limited scope for further licensing in this area for the domestic market. Only composite proposals with clear indications of immediate implementation could be supported.

2.2. Foreign collaboration linked with exports can be considered on merits.

METAL FILM/METAL OXIDE FILM RESISTORS

Present Status

1.1. The present licensed capacity in the organised sector is 145 lakh nos. The capacity approved in the small scale sector is 200 lakh nos. In addition, letters of intent have been issued for a total capacity of 100 lakh nos.

1.2. Production during the last two years was as follows:

1974	10.3 lakh nos.
1975	6.4 lakh nos.

Future Scope

2.1. There is some scope for further licensing for these items. Product diversification by the manufacturers of carbon film resistors to metal film resistors, with marginal additional investment can also be considered. In view of the limited local demand, an economically viable unit may have to be linked with exports especially where foreign collaboration is envisaged. Composite proposals with clear indications of immediate implementation could be supported.

2.2. Foreign collaboration, specifically to meet defence grade requirements, can be permitted on merits.

WIRE WOUND RESISTORS

Present Status

1.1. The present licensed capacity is 123 lakh nos. in the organised sector. The capacity approved in the small scale sector is 80 lakh nos. A capacity of 60 lakh nos. is earmarked for exports.

1.2. Production during the last two years was:-

1974	10.2 lakh nos.
1975	9.5 lakh nos.

Future Scope

2.1. The projected demand for this item by 1978-79 is 90 lakh nos. Manufacture of this item will be primarily encouraged in the small scale sector.

2.2. Foreign collaboration or import of know-how will not be considered except on substantial export basis.

CARBON TRACK POTENTIOMETERS

Present Status

1.1. The present licensed and installed capacities are 97.4 lakh nos. and 60.0 lakh nos. respectively. In addition, a letter of intent for a capacity of 28 lakh nos. has been issued and approved capacity in the small scale is 130.0 lakh nos.

1.2. Production during the last two years was as follows:

1974	52 lakh nos.
1975	40 lakh nos.

Future Scope

2.1. The demand for this item is estimated to be 160

lakh nos. by 1978-79. There is some scope for further licensing for this item on a selective basis, specially for professional types. Composite proposals with clear indications of immediate implementation could be supported.

WIRE WOUND/CERMET POTENTIOMETERS

Present Status

1.1. The present approved capacity both in the organised and small scale sector is 16.0 lakh nos.

1.2. Production during the last two years was:

1974	74,000 nos.
1975	69,000 nos.

Future Scope

2.1. The demand of this item is estimated to be 20 lakh nos. by 1978-79. There is scope for further licensing for this item on a selective basis specially for professional types. Foreign collaboration for cermet and miniature wire wound potentiometers could be considered as there is need for import substitution for this item. Composite proposals with clear indications of immediate implementation could be supported.

THERMISTORS/VARISTORS

Present Status

1.1. The licensed and installed capacity for the organised sector is 50.0 lakh nos. and 20.0 lakh nos. respectively. Further, a capacity of 5.0 lakh nos. has been approved in the small scale sector.

1.2. Production during last two years was:

1974	8.64 lakh nos.
1975	7.39 lakh nos.

Future Scope

2.1. Voltage dependent resistors required in TV and telecommunication equipment are being imported to some extent. There is scope for new units to come up for these items.

PLASTIC FILM CAPACITORS

Present Status

1.1. The present licensed and installed capacities are 1120 lakh nos. and 680 lakh nos. respectively. In addition, a capacity of 400 lakh nos. has been approved in the small scale sector. Moreover, letters of intent have been issued for a total capacity of 1130 lakh nos. Total capacity earmarked for exports is 445 lakh nos.

1.2. Production during the last two years was:

1974	408.5 lakh nos.
1975	333.1 lakh nos.

Future Scope

2.1. The assessed demand by the year 1978-79 is 1000 lakh nos. There is no scope for further licensing in this area for entertainment grade items. However, there is a gap in terms of professional grade polyester capacitors. Existing units can upgrade their product range so as to close this gap suitably. In addition, new export-oriented units now coming up can fill this gap from their internal sales.

CERAMIC CAPACITORS

Present Status

1.1. The present licensed and installed capacities are 1050 lakh nos. and 680 lakh nos. respectively. The capacity approved in the small scale sector is 400 lakh nos. In addition, a capacity of 3640 lakh nos. is covered by letters of intent. Total capacity earmarked for exports is 1,750 lakh nos.

1.2. Production during the last two year was:

1974	619.2 lakh nos.
1975	569.7 lakh nos.

Future Scope

2.1. The assessed demand for this item by the year 1978-79 is 2000 lakh nos. There is scope for further licensing for this item.

2.2. Foreign collaboration can be considered on merits for substantial exports and for manufacture of specialised types of capacitors such as temperature compensated types together with manufacture of feed through types.

ELECTROLYTIC CAPACITORS

Present Status

1.1. The present licensed and installed capacities are 645 lakh nos. and 284 lakh nos. respectively. In addition, a capacity of 400 lakh nos. has been approved in the small scale sector. The capacity covered by letters of intent is 400 lakh nos. Capacity earmarked for export is 225 lakh nos.

1.2. Production during the last two years was:

1974	162.1 lakh nos.
1975	127.8 lakh nos.

Future Scope

2.1. The assessed demand for this item is 700 lakh

nos. per annum by the year 1978-79. The existing units would be encouraged to diversify into the manufacture of professional grade types of electrolytic capacitors namely computer grade capacitors and long life capacitors. In addition, export-oriented proposals will also be encouraged.

2.2. Foreign collaboration on a limited basis can be considered on merits.

TANTALUM CAPACITORS

Present Status

1.1. The present licensed and installed capacity for this item is 107.5 lakh nos. and 4 lakh nos. respectively. In addition, letters of intent have been issued for a capacity of 82.5 lakh nos. Capacity earmarked for exports is 103.75 lakh nos.

1.2. Production during the last two years was:

1974	2.3 lakh nos.
1975	3.39 lakh nos.

Future Scope

2.1. The estimated demand of this item by 1978-79 is 15 lakh nos. There is scope for further licensing for proposals linked with exports.

2.2. Foreign collaboration based on significant exports can be considered on merits.

VARIABLE GANG CONDENSERS

Present Status

1.1. The present licensed and installed capacities are 65 and 58 lakh nos. respectively. The approved capacity in the small scale sector is 40 lakh nos. Capacity covered by letters of intent is 28 lakh nos. Capacity earmarked for exports is 22.5 lakh nos.

1.2. Production during the last 2 years was as under:

1974	25.85 lakh nos.
1975	16.37 lakh nos.

Future Scope

2.1. The demand of this item is estimated to be 60 lakh nos. by the year 1978-79. There is no scope for further licensing in this field except for substantial exports.

TRIMMERS

Present Status

1. The present licensed and installed capacity in the organised sector is 312.4 lakh nos. and 106.6 lakh nos. respectively. The capacity approved in the small scale

sector is 13 lakh nos. In addition, a capacity of 120 lakh nos. is covered by letters of intent.

1.2. Production during the last two years was:

1974	77.78 lakh nos.
1975	27.93 lakh nos.

Future Scope

2.1. The demand for this item is estimated to be 200 lakh nos. by the year 1978-79. There is scope for further licensing for the manufacture of professional grade trimmers, which are being imported at present.

2.2. Foreign collaboration for special type of trimmers like ceramic trimmers can be considered on merits.

MICA CAPACITORS

Present Status

1.1. The present licensed and installed capacity in the organised sector is 41 lakh nos. and 10 lakh nos. respectively. A capacity of 930 lakh nos. has been approved in the small scale sector. In addition, letters of intent have been issued for a capacity of 125 lakh nos. Total capacity earmarked for exports is 730 lakh nos.

1.2. Production during the last 2 years was:

1974	6.83 lakh nos.
1975	2.3 lakh nos.

Future Scope

2.1. The assessed demand for this item by 1978-79 is 10 lakh nos. There is no scope for further licensing for this item except for exports.

FERRITES

(a) Soft Ferrites

Present Status

1.1. In the area of soft ferrites, the present licensed and installed capacity in the organised sector is 353 tons and 310 tons respectively. Capacity covered by letters of intent is 397 tons and approved capacity in the small scale sector is 124 tons. Total capacity earmarked for exports is 168 tons.

1.2. The production during the last two years was:

1974	134.198 tons
1975	123.253 tons

Future Scope

2.1. There is limited scope for licensing new units. Existing units are expected to expand suitably to fill up demand gaps.

(b) Hard Ferrites

Present Status

1.1. In the area of hard ferrites, the present licensed and installed capacities are 580 tonnes and 470 tonnes respectively. Capacity covered by letters of intent and small scale approvals is 250 tonnes each. Capacity earmarked for exports is 135 tonnes.

1.2. The production during the last two years was:

1974	210.671 tonnes
1975	186.360 tonnes

Future Scope

2.1. There is some scope for licensing for hard ferrites, specially, oriented hard ferrite magnets.

MAGNETIC TAPES

Present Status

1.1. A capacity of 1100 and 1000 lakh running meters has been approved in each of the organised and small scale sectors respectively. A further capacity of 3200 lakh running meters is covered by letters of intent.

1.2. The production during the last two years was:

1974	52.73 lakh meters
1975	34.38 lakh meters

Future Scope

2.1. The assessed demand by the year 1978-79 is 3000 lakh running meters. Proposals for additional capacity in this field would be considered (including those based on foreign collaboration) only where production includes video and computer tapes or with substantial exports commitments. Foreign collaboration can be considered on merits.

CRYSTALS

Present Status

1.1. The present licensed and installed capacity in the organised sector is 1.2 lakh nos. and 2.5 lakh nos. respectively. An additional capacity of 3.2 lakh nos. is covered by letters of intent.

1.2. The production during the last two years was:-

1974	2.28 lakh nos.
1975	2.15 lakh nos.

Future Scope

2.1. The estimated demand by 1978-79 for this item is 10 lakh nos. There is limited scope for creating further capacity for this item.

LOUDSPEAKERS

Present Status

1.1. The present licensed capacity and installed capacity in the organised is 23.93 lakh nos. and 41.60 lakh nos. respectively. A capacity of 40 lakh nos. has been approved for the small scale sector. In addition, a capacity of 25 lakh nos. is covered by letters of intent. Total capacity earmarked for exports is 20 lakh nos.

1.2. Production during the last two years was:

1974	32.12 lakh nos.
1975	20.56 lakh nos.

Future Scope

2.1. The assessed demand for this item is 80 lakh nos. by 1978-79. This item is currently reserved for manufacture in the small scale sector and additional approvals in the small scale can be encouraged on merits. There is good potential for export of this item.

MICROPHONES

Present Status

1.1. The present licensed capacity for this item in the organised sector is of 10,000 nos. per annum. A capacity of 8.7 lakh nos. has been approved in the small scale sector. An additional capacity of 56,000 nos. is covered by letters of intent.

1.2. Production during the last two years in the organised sector was:

1974	5000 nos.
1975	2500 nos.

Future Scope

2.1. The demand of microphones is estimated at 7 lakh nos. by 1978-79. There is scope for further licensing in this field.

2.2. Foreign collaboration can be considered for integrated proposals involving the manufacture of inserts.

MAGNETIC HEADS

Present Status

1.1. The licensed capacity in the organised sector is 0.5 lakh nos. A capacity of 5.7 lakh nos. has been approved in the small scale sector. In addition, a capacity of one lakh nos. is covered by letters of intent. This item is not yet being manufactured in the country. Capacity earmarked for exports is 2 lakh nos.

Future Scope

2.1. The estimated demand for this item by 1978-79

is 3 lakh nos. There is scope for further licensing for this item.

2.2. Foreign collaboration can also be considered on merits such as significant export commitment.

CARTRIDGES AND STYLUS

Present Status

1.1. The present licensed and installed capacity for cartridges is 3.5 lakh nos. and that for Stylus is 3.0 lakh nos. A capacity of 7.0 lakh nos. for cartridges and 12.4 lakh nos. for stylus has been approved in the small scale sector. Capacity covered under letters of intent for stylus is 15 lakh nos. Capacity for exports for cartridges is 1.2 lakh nos. and stylus is 7.2 lakh nos.

1.2. Production of cartridges and stylus during the last two years was:

Item	Production (lakh nos.)	
	1974	1975
Cartridges	0.91	0.69
Stylus	0.14	0.14

Future Scope

2.1. There is limited scope for further licensing.

2.2. Foreign collaboration can be considered on merits.

T.V. DEFLECTION COMPONENTS

Present Status

1.1. The present licensed and installed capacities are of 1.0 lakh nos. and 0.60 lakh nos. respectively. The approved capacity in the small scale sector is 6.3 lakh nos. Estimated demand is 3.5 lakh nos. by the year 1978-79.

Future Scope

2.1. There is no scope for further licensing.

CONNECTORS

Present Status

1.1. The present licensed and installed capacities in the organised sector are 37.14 lakh nos. and 11.00 lakh nos. respectively. The capacity approved in the small scale sector is 17.52 lakh nos. In addition, a capacity of 64 lakh nos. is covered by letters of intent. Total capacity earmarked for exports is 24 lakh nos.

1.2. Production during the last two years was:

1974	3.05 lakh nos.
1975	4.08 lakh nos.

Future Scope

2.1. The estimated demand for this item by 1978-79

is 102 lakh nos. In view of the capacity and the number of foreign collaboration cases already approved, there is no scope for further licensing in this field. The units already approved are expected to meet the demand gap.

ELECTRO-MAGNETIC RELAYS, REED RELAYS AND REED SWITCHES

Present Status

1.1. The present licensed and installed capacity of electro-magnetic relays in the organised sector is 5.5 lakh nos. and 2.35 lakh nos. respectively. In addition, a capacity of 10 lakh nos. has been approved in the small scale sector. Letters of intent have been issued for a capacity of 1.35 lakh nos. Total capacity earmarked for exports is 1 lakh nos. For reed relays and reed switches, the licensed and installed capacity is 92 lakh nos. and 18 lakh nos. respectively. A capacity of 20.6 lakh nos. has been approved in the small scale sector. Total capacity earmarked for exports is 39 lakh nos.

1.2. Production of relays during the past two years was as under:-

Electromagnetic relays

1974	1.62 lakh nos.
1975	1.81 lakh nos.

Reed relays and reed switches

1974	2.3 lakh nos.
1975	3.3 lakh nos.

Future Scope

2.1. The estimated demand of electro-magnetic relays by 1978-79 is 39 lakh nos. For reeds, the demand is estimated to be 41 lakh nos. There is scope for further licensing for manufacture of electro-mechanical relays. In view of the capacity already approved, there is no scope for further licensing for reed relays and reed switches.

SWITCHES

Present Status

1.1. The present licensed and installed capacities in the organised sector are 61.5 lakh nos. and 30.0 lakh nos. respectively. The capacity approved in the small scale sector is 7 lakh nos. The capacity covered by letters of intent is 13.5 lakh nos.

1.2. Production during the last two years was as under:

1974	25.07 lakh nos.
1975	14.8 lakh nos.

Future Scope

2.1. The assessed demand for this item by the year 1978-79 is 113 lakh nos. There is scope for further licensing for new units as also diversification of the existing units to take up manufacture of miniature switches as well as professional grade switches.

2.2. Foreign collaboration linked with exports may be considered on merits.

PRINTED CIRCUIT BOARDS

Present Status

1.1. The licensed capacity in the organised sector is 0.1 lakh sq. meters. The capacity approved in the small scale sector is 0.60 lakh sq. meters. In addition, a capacity of 0.15 lakh sq. meters is covered by letters of intent. A few units in the organised sector have also set up capacity for captive consumption for this item.

1.2. Production during the last two years was:

1974	Rs. 24.82 lakhs
1975	Rs. 20.23 lakhs

Future Scope

2.1. The estimated demand for this item by 1978-79 is 2 lakh sq. meters. There is scope for further licensing of professional grade printed circuits boards (double layer/multilayer).

TAPE DECKS

Present Status

1.1. The present licensed capacity in the organised sector is 1.2 lakh nos. A capacity of 0.5 lakh nos. has been approved in the small scale sector.

Future Scope

2.1. The demand of this item is estimated to be 3 lakh nos. by 1978-79. There is scope for further licensing of tape decks for use in tape recorders.

DC MICROMOTORS

Present Status

1.1. The present licensed capacity in the organised sector is 0.25 lakh nos. In addition, letters of intent have been issued for a capacity of 4.0 lakh nos. The capacity approved in the small scale sector is 6.00 lakh nos. Total capacity earmarked for exports is 0.3 lakh nos.

Future Scope

2.1. There is scope for further licensing.

2.2. Foreign collaboration will be considered only if there is an export tie-up.

ELECTRONIC MATERIALS

A large number of raw materials of special quality required for the electronics industry are presently being imported as per ITC policy. There is a need for creating indigenous production capabilities for those items required in sizeable quantities. An illustrative list of raw materials required for electronics industry is given at annexure IX.

Exports

1.1. Exports of electronic goods in 1975 was expected to be about Rs. 15 crores comprising of data processing equipment, radios, public address equipment, telephones and teleprinters and electronic components. The targeted export during the Fifth Plan period is Rs. 120 crores excluding export from the Santa Cruz and other export processing zones.

A list of items with good export potential is given in Annexure X.

1.2. The export processing zone at Santa Cruz, Bombay, offers various incentives *e.g.* no imports duties, liberal licensing policies etc. Interested entrepreneurs may contact the Development Commissioner, Santa

Cruz Electronic Export Processing Zone, Bombay for additional details.

Hints to Entrepreneurs

1.1. For filling applications for the grant of licences/ letters of intent/approvals, for manufacture of electronic items, entrepreneurs are advised to furnish the following information:

- (a) Detailed specifications of components and equipment proposed to be manufactured.
- (b) A list of imported capital goods together with their values.
- (c) Details of raw materials to be imported together with their c.i.f. prices.
- (d) Relevant background of the entrepreneur especially in technology and R & D activities.

1.2. In the case of manufacture of components and sophisticated equipment, or any other capital intensive project involving foreign collaboration, it is desirable to apply on a composite basis for letter of intent, foreign collaboration and capital goods simultaneously.

1.3. Export-oriented proposals will be considered on merits, even where no scope exists for creation of capacities for the domestic market.

CURRENT STATUS AND DEMAND FOR CONSUMER ELECTRONIC ITEMS
(Numbers in brackets relate to exports)

Sl No.	Item	Licensed capa- city/Installed Capacity (nos.)	Production		Letter of Intent capacity	SSI approved capacity (nos.)	SSI Production		Demand 1978-79 (nos.)
			1974 (nos.) (Organised Sector)	1975 (nos.)			1974* (nos.)	1975* (nos.)	
1.	Radio Receivers	3.16M/2.94M	2.06M	1.519M	—	—	1.4M	1.0M	6.0M
2.	Car Radios	25,000/25,000 (18,750)	Nil	5351	106,000 (93,750)	70,000	10,000	25,000	
3.	T.V. Receivers	107,000/90,000	26,244	43,513	33,000 (25,000)	184,300	49,500	50,000	300,00
4.	Tape-recorders including Car Stereos	150,200/40,000 (28,000)	110	5,297	95,500 (42,000)	536,680 (10,430)	35,000	45,000	250,000 (50,000)
5.	Record Players	280,000/186,600 (65,000)	110,930	113,201	—	138,000	17,000	25,000	250,000 (50,000)
6.	Electronic Desk Calculators	89,000 (56,700)	3,370	10,264	14,000 (7,800)	80,600 (36,780)	6,000	10,000	50,000
7.	Amplifiers and P.A. Systems	22,350/17,955	7,468	4,052	57,000 (53,300)	150,000	100,000	115,000	300,000 (100,000)
8.	Hearing aids	2,000	—	—	—	58,640	20,000	25,000	100,000

*Estimated figures

Annexure II

DEMAND PROFILE FOR PERIPHERALS FOR THE FIFTH PLAN PERIOD

Type of application	OE applications		Small on-line applications		Large on-line applications		Stand-alone Systems				Grand total
							Scientific		Business		
	Per sys-tem	Total (128 sys-tem	Per sys-tems	Total (328 sys-tem	Per sys-tems	Total (190 sys-tem	Per sys-tems	Total (128 sys-tem	Per sys-tems	Total (135 sys-tem	
Teletype with low-speed	1	282	1.0	328	2.0	380	4.0	512	1.0	135	1637
Paper tape reader and punch (high speed	—	—	1.0	328	1.0	190	1.0	128	0.5	68	714
Card reader medium speed	—	—	0.1	33	—	—	0.5	64	0.5	68	165
Card reader high speed)	—	—	0.01	3	0.2	38	—	—	0.5	68	109
Card punch	—	—	—	—	—	—	0.1	13	0.2	27	40
Line printer medium speed	—	—	0.1	33	0.2	38	0.8	102	0.		
Line printer high speed	—	—	—	—	—	—	0.2	26	0.7	96	122
Magnetic tape medium speed	—	—	0.1	33	0.4	76	2.0	256	2.0	270	635
Magnetic tape high speed	—	—	—	—	0.1	19	—	—	1.0	135	154
Magnetic disc fixed heads	—	—	0.4	131	1.0	190	1.0	128	1.0	135	584
Magnetic disc moveable heads	—	—	—	—	0.1	19	0.5	64	4.0	540	633
CRT display	—	—	0.2	65	0.5	95	0.1	13	—	—	173
CRT display with light pen	—	—	—	—	—	—	0.2	26	—	—	26
Plotter (10'')	—	—	—	—	—	—	0.5	65	—	—	65

Source: Report of Panel on Minicomputers, Electronics—Information & Planning Vol: 1, No. 5, Feb. 1975

Annexure III

DEMAND FORECAST FOR ELECTRONIC CONTROLS FOR SPEED DRIVES (1974-79)

Sl. No.	Item	Less than 10 KW	Number required		More than 1000 KW	Cost in Rs. crores
			10-100 KW	100-1000 KW		
1.	Rectifier inverter drives	3000	80	—	10	2.04
2.	Controlled rectifier drives	3700	500	1230	15	27.24
3.	Bipolar stepper motor drives	500	—	—	—	0.75
4.	Chopper controlled drives	—	—	30	—	0.60

Source: Report of the Panel on Industrial Drives and Controls, Electronics—Information & Planning, Vol. 1, No. 3 December 1974.

DEMAND FORECAST FOR INSTRUMENT SERVO COMPONENTS

(All figures in Rs. crores)

<i>Sl.</i>	<i>Item</i>	<i>1975-76</i>	<i>1976-77</i>	<i>1977-78</i>	<i>1978-79</i>
1.	All components, total	93	136	185	215
2.	Instrument servo components, total	2.50	3.10	3.90	5.00
3.	Synchros	0.61	0.70	0.95	1.21
4.	Resolvers	0.15	0.17	0.18	0.20
5.	Servo motors	0.33	0.41	0.50	0.01
6.	Technogenerators	0.08	0.10	0.13	0.15
7.	Motor Generators	0.22	0.27	0.36	0.41
8.	Solenoid	0.36	0.42	0.57	0.68
9.	Shaft encoders	0.22	0.31	0.48	0.02
10.	Acceleromoters and gyros	0.53	0.62	0.73	1.02

Source: Report of the Panel on Control Components "Electronics—Information & Planning Vol. 1, No. 8, May 1974".

DEMAND PROJECTIONS ON MEDICAL ELECTRONICS
(Fifth Plan Requirements of some individual items)

<i>Sl. no.</i>	<i>Item</i>	<i>Estimated requirements (nos.)</i>	<i>Approximate unit cost (Rs.)</i>	<i>Total (Rs. crores)</i>
1.	Portable intensive care unit	100	50,000	0.50
2.	Electrocardiograph	8,000	10,000	8.00
3.	Defibrillators (DC)	2,500	10,000	2.50
4.	Pacemaker (external and internal)	5,000	2,500	1.25
5.	Pacemaker (implantable)	1,000	5,000	0.50
6.	Cardio monitor	1000	10,000	1.00
7.	Intensive care unit	100	200,000	2.00
8.	Electroencephalograph	80	120,000	0.96
9.	Electromyograph	80	35,000	0.28
10.	Polygraph (4 channel)	50	60,000	0.30

Source: 'Report of the Panel on Medical Electronics' Electronics—Information & Planning, Vol. 1, No. 4, January 1974.

ELECTRONIC INSTRUMENTS—PRESENT PRODUCTION AND DEMAND FORECAST

<i>Sl. No.</i>	<i>Item</i>	<i>Production</i>		<i>Demand in Fifth Plan Period</i>	<i>Terminal Year 1978-79</i>
		<i>1973-74</i>	<i>1974-75</i>		
1.	Test and measuring	8.40*	9.5*	86.5	25.0
2.	Analytical**	2.30	3.0	43.0	13.0
3.	Nuclear	0.75	1.5	10.0	2.5
4.	Geoscientific	0.15	0.5	12.7	3.5
5.	Microwave			11.0	3.0
Total		11.60	14.50	163.2	47.0

**Includes production of microwave instruments.

**The demand projections include part of instruments required for process control systems.

Source: IPAG.

TYPICAL ELECTRONIC INSTRUMENTS FOR WHICH THERE IS SCOPE

1. **Test and Measuring Instruments:** (a) High frequency oscilloscope (Bandwidth more than 50 MHz) (b) Characteristic curve tracer (c) Storage oscilloscope (d) Spectrum analyser (e) Sweep generator to cover UHF, VHF and microwave frequency ranges (f) Precision impedance bridge (g) RF millivoltmeter (h) Field intensitymeter (i) Electronic volt-ohmmeter (j) Microwave power meter.
2. **Analytical Instruments:** (a) PH meters (b) Conductivity meter (c) Chromatographs and gas analysers (d) Polarimeters and spectrophotometers (e) X-ray analysers (f) Specificion electrode analyser.
3. **Geoscientific Instruments:** (a) Resistivity/surface porosity meters (b) Logging units (c) Strain meters and extensometers (d) Wind wave/anemometers (e) Dust/particulate analyser (f) Salinity tester/recorder (g) Sound velocity analyser (h) Hydrophones.
4. **Agri-electronic Instruments:** (a) Soil moisture meters (b) Soil densitometers (c) Soil temperature measurement (d) Relative humidity meter (e) Light intensity meter.

ELECTRONICS COMPONENTS—CURRENT STATUS AND DEMAND PROJECTION

(All quantities are in million nos. except where otherwise states)

Capacities for exports indicated in brackets.

Sl. No.	Items	Licensed capacity/ installed capacity	Production		Letter of intent capacity	SSI approved capacity	Demand 1978-79	Estimated Production gap (Pl. see note (i))
			1974	1975				
1	2	3	4	5	6	7	8	9
ACTIVE COMPONENTS								
(i) Semi Conductor Devices								
1.	Transistors and diodes	250/86.5 (108.0)	72.2	59.8	48.0 (21.0)	—	100.0	—
2.	Power transistors	—	—	—	2.6 (0.5)	—	4.6	—
3.	Integrated circuits	5.0/2.0	0.14	0.18	6.4 (0.1)	—	10.0	2.41
4.	Power diodes < 30 Amps. > 30 Amps.	0.164/0.3	0.25	0.3	2.9 0.23	—	14.0 0.15	1.9
5.	SCR's < 30 Amps. > 30 Amps.	0.075/0.01	0.008	0.004	2.8 0.236	0.235 0.05	2.0 0.133	— —
(ii) Electron Tubes								
6.	Transmitting tubes (including thyratrons and gas rectifiers).	36,000/20,000 nos. nos.	12,797 nos.	7,000 nos.	12,000 nos.	—	—	—
7.	Microwaves tubes (both low and high power in all frequency bands).	-/200 nos.	150 nos.	200 nos.	100 nos.	—	2000 nos.	1700 nos.
8.	X-Ray tubes	3600/1800 nos. nos.	1000 nos.	1000 nos.	— nos.	—	3000 nos.	1000 nos.
9.	T.V. tubes	0.280/0.136	0.061	0.070	0.080	—	0.35	—
10.	C.R. tubes	5000/3000 nos. nos.	0.002	0.0008	10,000 nos.	5000 nos.	5000 nos.	1000 nos.
11.	Photo and image intensifier tubes	—	—	—	1500 nos.	— nos.	10,000 nos.	8,500 nos.

1	2	3	4	5	6	7	8	9
12. Gas filled tubes	—	—	—	—	1300 nos.	—	175000 nos.	173700 nos.
13. Receiving valves	10.00/10.00	4.97	4.88	—	—	—	7.5	—
Passive Components								
14. Carbon film resistors	225.0/234.00 (19.0)	211.58	136.01	160.00 (42.5)	80.00	300.00	—	—
15. Metal film/ metal oxide film resistors	14.50/7.8	1.03	0.64	10.00	20.00	10.00	—	—
16. Wire wound resistors	12.3/2.2	1.02	0.95	—	8.00	9.00	1.00	—
17. Carbon track potentiometers	9.74/6.0 (0.4)	5.2	4.00	2.8	13.00	1600	—	—
18. Wire wound/cermet potentiometers	1.1/1.0 (0.1)	0.074	0.069	—	0.50	2.00	0.4	—
19. Thermistors/ varistors	5.0/2.0	0.864	0.739	—	0.50	8.0	4.8	—
20. Plastic film capacitors	112.00/68.00 (6.0)	40.85	33.31	113.00 (38.5)	40.00	100.00	—	—
21. Ceramic capacitors	105.0/68.00 (15.00)	61.92	56.97	364.00 (160.00)	40.00	200.00	—	—
22. Electrolytic capacitors	64.5/28.4 (13.5)	16.21	12.78	40.00 (5.00)	40.00 (4.00)	70.00	—	—
23. Variable gang condensers	6.50/5.8 (2.25)	2.585	1.637	2.80	4.00	6.00	—	—
24. Trimmers	31.24/10.66	7.778	2.793	12.00	1.30	20.00	—	—
25. Tantalum Capacitors	10.75/0.4 (10.00)	0.23	0.339	8.25 (3.75)	—	1.50	—	—
26. Mica capacitors	4.1/1.00	0.683	0.230	12.5 (3.00)	93.00 (70.00)	1.00	—	—
27. Mica plate parts	286.00 (200.00)	N.A.	—	—	(mainly for exports)			—
28. Ferrites (tonnes)								
(a) Soft ferrites	353.00/310.00	134.198	123.253	397.00 (150)	124.00 (18.00)	660.00	100.00	—
(b) Hard ferrites	580.00/470.00	210.671	186.360	250.00	250(135)	750.00	100.00	—

1	2	3	4	5	6	7	8	9
29. Magnetic tapes	110.00/33.00	5.273	3.438	320.00 (45.00)	100.00	300.00	50.00	
30. Crystals	0.12/0.25	0.228	0.215	0.32	—	1.00	0.5	
31. Loudspeakers	2.393/4.16	3.212	2.056	2.5(2.0)	4.0	8.0	3.0	
32. Microphones	0.01	0.005	0.0025	0.056	0.87	0.700	0.3	
33. Magnetic heads	0.05	—	—	0.1	0.57 (0.2)	0.300	0.1	
34. Cartridges	0.35/0.35 (0.12)	0.091	0.069	—	.7	0.400	—	
35. Stylus	0.30/0.30 (0.12)	0.014	0.014	1.5 (0.6)	1.24	1.600	0.3	
36. TV deflection components (sets)	0.1/0.060 (0.12)	N.A.	2.1 million	—	0.63	0.35	—	
Electromechanical Components								
37. Connectors	3.714/1.1 (0.40)	0.305	0.408	6.4(2.0)	1.752	10.200 Incl. 7.2 professional	3.0	
38. Relays (Electromagnetic)	0.55/0.235 (0.1)	0.162	0.181	0.135	1.00	3.900	2.0	
39. Reed relays and reed switches	9.2/1.8 (2.7)	0.23	0.33	—	2.06 (1.2)	4.1	—	
40. Switches	6.15/3.00	2.507	1.480	1.35	0.7 Incl. 1.3. prof.	11.300	5.0	
41. Printed circuit boards (million sq. meters)	0.01 (0.05)	Rs. 2.482 million	Rs. 2.023 million	0.015 (0.003)	0.06	0.200 Incl. 0.02 prof.	0.13	
42. Tape decks	0.12	—	—	—	0.05	0.300	0.13	
43. DC micromotors	0.025	—	—	0.40	0.6 (0.03)	0.500	0.2	

Notes:

- (i) Production Gap = Demand in 1978-79 less installed capacity less IL/LI/SSI approved capacity likely to materialise. These figures are indication of the production gap that may exist in 1978-79 based on the present progress of implementation. For guidelines for fresh licensing for individual items please refer to the main body of the text.
- (ii) Production figures (column. 4 & 5) relate to organised sector units only. Letter of intent capacity refers to letters of intent issued upto March, 1976.

ILLUSTRATIVE LIST OF IMPORTANT RAW MATERIALS FOR ELECTRONICS INDUSTRY

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. ABS 2. High purity aluminium metal and foils 3. Aluminium oxide/hydroxide 4. Alumina substrate/powder 5. Bimetal strips (Ag-Au/Ag-Pd) 6. Boron/boron nitride 7. Carbon/graphite 8. Constantan/
Manganin/
Karma/
Evanchm 9. Copper (foils, thin wires and OFHC) 10. Copper-beryllium 11. DAP 12. Dumet 13. Epoxy (special) 14. Ferric oxide-special grade 15. Foresterits/steatite 16. SMP, NFC gallium. GSAs/Gap 17. Glass for sealing 18. Comprassion sealing
Dumet sealing
Kovar sealing 18. Gamma ferric oxide | <ol style="list-style-type: none"> 19. Kovar and iron-nickel alloys 20. Manganese dioxide (for special ferrites) 21. Metalised ceramics/and special
ceramics/ceramic parts 22. Molybdenum 23. MU-metal 24. Mullite 25. Nickel 26. Nickel-silver 27. Nitric acid 28. Phenolics (special purpose) 29. Phosphorus 30. Phosphor bronze 31. Plastic films for capacitors —Polyester
—Polystyrene 32. Polycarbonate (moulding powder) 33. Polyestar —moulding
Film for magnetic tape 34. PTFE 35. Quartz-fused and crystals 36. Silicop tetrachloride/Silicon 37. Strontium carbonate 38. Special ultrapure alloys wires, etc. 39. Thick film materials. |
|--|---|

Annexure X

LIST OF ITEMS HAVING EXPORT POTENTIAL

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Antennas and antenna hardware 2. Capacitors <ol style="list-style-type: none"> a) Electrolytic b) Ceramic c) Plastic film d) Paper e) Tantalum 3. Connectors, plugs and sockets 4. Loudspeakers 5. Microphones 6. Fixed resistors 7. Variable resistors 8. Variable capacitors 9. Semiconductor devices including integrated circuits 10. Receiving valves and tubes | <ol style="list-style-type: none"> 11. Crystals 12. Relays 13. Printed circuits boards 14. Transformers, coils and chokes 15. Electronic calculators (a) Desk top
(b) Pocket size 16. Transistor radios AM/FM 17. Auto radios, IC radio 18. Cassette tape recorders 19. PA and Hi-Fi equipment 20. TV receivers including portable 21. Oscilloscopes 22. Digital instruments 23. Battery eliminators 24. Power supplies. |
|--|--|

TRANSPORTATION

AUTOMOBILES COMMERCIAL VEHICLES

Present Status

1.1. There are at present 7 units producing commercial vehicles with a total installed capacity of 64,000 nos. as against a licensed capacity of 103,000 nos. per annum. The commercial vehicles presently produced in the country range between 3/4 to 16 tonnes payload, of which the principal product is in the range of 7½ tonnes. Out of the total production of vehicles in this range, 30% accounts for passenger buses. In addition to the present licensed capacity, letters of intent for a capacity of 62,000 nos. of light commercial vehicles have been issued.

1.2. There is only one manufacturer of Jeeps, whose licensed capacity is 15,000 nos. per annum and installed capacity is 13,000 nos. per annum.

1.3. The production of commercial vehicles including jeeps during the last 3 years was as under:

Year	Heavy and medium comm. vehicles	Light comm. vehicles	Jeeps
1973	33,916	8,484	13,071
1974	34,887	5,693	10,015
1975	36,037	6,630	8,171

The production of light commercial vehicles and jeeps has suffered as a result of high petrol price, as bulk of the production of light commercial vehicles and jeeps is with petrol engines.

1.4. The capacity and production of vehicle factory, Jabalpur, (under Defence sector) is not included in the above table. The Jabalpur factory has an installed capacity of a little over 13,000 nos. of vehicles per annum and the current rate of production is approximately 650 nos. per month.

Imports and Exports

2.1. Almost the entire requirements of commercial vehicles (including jeeps) of the country is being met indigenously. The quality of the vehicles manufactured is comparable to international standards. In fact the vehicles manufactured in the country have found acceptance in foreign countries. Imports are confined to very heavy duty trucks and specialised vehicles. The import and export of commercial vehicles during the past 3 years has been as under:

	nos.	Imports	nos.	Exports
1972-73	75	Rs. 63.00 lakhs	1471	Rs. 654.00 lakhs
1973-74	58	Rs. 35.00 lakhs	609	Rs. 393.00 lakhs
1974-75	58	Rs. 42.00 lakhs	1246	Rs. 795.00 lakhs

Future Scope

3.1. According to the draft Fifth Five Year Plan, the targets of capacity and production for various types of commercial vehicles are as under:

	Heavy and medium comm. vehicles	Light comm. vehicles	Jeeps
1978-79	85,000	35,000	20,000
Capacity			
Production	64,000	28,000	18,000

As a result of the present economic situation, the demand for commercial vehicles, particularly light commercial vehicles and jeeps is not likely to have the growth which was anticipated earlier. The inputs Panel of the Development Council for Automobiles and Allied Industries, which is working on the demand, capacity, production targets, etc. of various types of vehicles, have tentatively suggested scaling down the demand projections of all commercial vehicles and jeeps.

3.2. Even going by the earlier estimate of demand for 1978-79, there is adequate capacity for light commercial vehicles and jeeps. For the heavy and medium commercial vehicles, the Government is considering the possibility of establishing a unit in the public sector to take care of any anticipated gap. There is thus no scope for creation of new units. Taking into consideration, the licences/letters of intent already issued and very heavy investment involved for the manufacture of commercial vehicles, gaps, if any, can be bridged either by the establishment of the unit in the public sector or by diversification of capacity of some of the existing units.

PASSENGER CARS

Present Status

1.1. There are 3 units in production manufacturing passenger cars with an installed capacity of 47,400 nos. per annum. In addition, licences/registration have also been issued for an additional capacity of 53,000 nos. per annum. Further capacity to the extent of 55,000 nos. has also been approved through issue of letters of intent.

1.2. The production of passenger cars during the last 3 years was as under:

1973	40,390 nos.
1974	42,467 nos.
1975	23,250 nos.

The production of passenger cars has considerably come down as a result of lack of offtake arising out of high initial cost of the cars and the increasing maintenance costs.

1.3. The imports for this industry could be classified into two categories viz. (i) components, and (ii) raw materials like steel. Under the former category, imports are very limited and in fact they are less than 0.5%. The raw materials required for the manufacture of passenger cars are mild steel and alloy steel of certain varieties which are indigenously available. Deep drawing quality sheets and non-ferrous metals are some of the raw materials which need to be imported.

Imports and Exports

2.1. Import of passenger cars is generally not allowed. Some imports do take place for specialised vehicles such as those required for disabled persons. The industry is yet to enter the export market to any appreciable extent.

Future Scope

3.1. The production targets for Fifth Five Year Plan for passenger cars is 60,000 nos. by 1978-79. Having regard to the present trend in the production and off-take of cars, it is doubtful if the demand projection made earlier would materialise. In any case, the existing capacity and the capacity likely to materialise is considered more than adequate to meet the demand for passenger cars by 1978-79, even allowing for a reasonable spurt in the demand. There is, therefore, no scope for establishment of additional capacity in this field.

TWO-WHEELERS AND THREE-WHEELERS (Motorcycles, Auto-Rickshaws, Scooters and Mopeds)

Present Status

1.1. There are 4 units manufacturing motorcycles with a total installed capacity of 83,500 nos. per annum. These units are manufacturing motorcycles upto 350 cc capacity.

1.2. Scooters are being manufactured by 4 units with a total installed capacity of 2 lakh nos. per annum as against their licensed capacity of 505,200 nos. There are two more units which have recently gone into production. The eventual capacity of these two units will be about 48,000 nos. per annum.

1.3. There are two units manufacturing 3-wheelers with an installed capacity of 21,000 nos. per annum.

1.4. The present installed capacity of the 3 units manufacturing mopeds is 67,500 nos. per annum. Two more units have gone into production recently for the manufacture of mopeds, whose eventual production capacity is likely to be 30,000 nos. per annum.

Production

2.1. The production during the last 3 years for all these categories of vehicles has been as under:

Year	3-wheelers	M/Cycles	Scooters	Mopeds
	Auto-Rickshaws			
1973	11,335	48,860	78,079	23,312
1974	12,646	53,635	85,639	29,298
1975	12,123	69,729	101,631	34,172

3.1. The total capacity covered by industrial licences and letters of intent for various items referred to above is given below. Effective capacity likely to materialise including the existing capacity is also indicated:

Break-up of capacity	3-Wheelers	Motor cycles	Scooters	Mopeds
	Auto-Rickshaws			
(i) Total licensed/ approved capacity of units in production	60,000	88,500	230,200	67,500
(ii) Additional capacity approved (licensed/ registration/ letters of intent	48,000	3,000	437,000	390,000
Total	108,000	91,500	667,200	457,500
(iii) Effective capacity likely to materialise including capacity of units in production.	60,000	91,500	490,000	240,000

Imports and Exports

4.1. Import of these categories of vehicles is negligible and is confined to certain types of specialised motorcycles or prototypes. The industry has not been

able to make any substantial impact on export of motorcycles and mopeds. Export of 3-wheelers auto-rickshaws and scooters has, however, taken place and in fact the scooters manufactured in the country are becoming increasingly popular in countries abroad. Export figures for these categories of vehicles are as under:

Year	3-wheelers Auto- Rickshaws	Motor cycles	Scooters	Mopeds
1971-72	9	4	307	—
1972-73	1549	49	627	—
1973-74	117	4	841	—
1974-75	377	5	2992	—

5.1. The main raw materials required for this industry are mild steel sheets, alloy steel sections, steel tubes, aluminium and zinc. Part of the requirements of steel sheets and tubes are met indigenously and the balance is permitted for import as per the policy from time to time. The import of components for these industries is negligible and is confined to only some critical items which are in short supply.

Technology

6.1. All these categories of vehicles manufactured in the country are comparable to international standards. The manufacturing expertise for these categories of vehicles is now available in the country and the concept of transfer of technology from one unit to another unit, particularly in the field of scooters, has become popular.

Future Scope

7.1. The production target indicated in the Fifth Five Year Plan for the year 1978-79, is as under:

3-Wheelers—Auto-rickshaws	40,000 nos. per annum
Motorcycles	130,000 nos. per annum
Scooters	300,000 nos. per annum
Mopeds	130,000 nos. per annum

7.2. The capacities already approved and the capacity likely to materialise are considered adequate to take care of the anticipated requirement of 3-wheelers auto-rickshaws, scooters and mopeds by 1978-79. There is thus no scope for creation of additional capacity for these industries. With regard to motorcycles, there is still some gap between the estimated demand and the capacity likely to materialise. There is thus scope in this field for creation of additional capacity.

AUTOMOBILE ANCILLARIES

BRAKE ASSEMBLY

Present Status

1.1. Brake assembly is of two types generally, *namely*, hydraulic brakes and pneumatic brakes. There are, at present, three units manufacturing brake assembly with annual capacity of 1.96 lakh nos. of hydraulic brakes and 96,000 sets of pneumatic brakes. Capacity licensed has been fully installed. In addition, letters of intent have been issued for 40,000 sets of pneumatic brakes and 230,000 sets of hydraulic brakes. The production during the last three years was as under:

1973	133,866 nos.
1974	132,750 nos.
1975	269,771 nos.

1.2. By and large, the requirements of brake assemblies both for original equipment as well as for the replacement market, are being met by indigenous manufacturers. There have also not been any significant imports in the recent past.

1.3. The industry has achieved high degree of indigenous content in regard to the components. The main raw materials are alloy steel plates, steel sheets and strips. Only part of the requirements of raw materials is to be imported to supplement the indigenous availability. The Task Force on Auto Ancillaries has assessed the demand by 1978-79 as four lakh sets of hydraulic brakes and 80,000 sets of pneumatic brakes.

Future Scope

2.1. Brake assembly, either hydraulic or pneumatic involves advanced design technology and modern manufacturing techniques. Having regard to the progress made by holders of letters of intent, the capacity likely to materialise is 296,000 sets of hydraulic brakes and 136,000 sets of air brakes. There is still some scope for establishing additional capacity for hydraulic brake assembly. Well conceived schemes may be considered on merits.

2.2. Proposals for foreign collaboration could be considered on merits.

FLY WHEEL RING GEARS

Present Status

1.1. There are, at present, two units, manufacturing fly wheels ring gears with a total capacity of 302,000 numbers. In addition, letters of intent have been issued to two more units for a total capacity of 400,000 nos. The total effective capacity likely to be available is 502,000 nos. per annum. The production during the last three years was as under:

1973	68,231 nos.
1974	1,01,938 nos.
1975	1,02,000 nos.

No significant imports have taken place in the recent past.

1.2. The main raw material required for the manufacture of this item is steel sections. Although a part of the requirement of steel section is available within the country, imports are also allowed to supplement the indigenous availability.

Future Scope

2.1. According to the earlier estimates, the demand for fly wheel ring gears by 1978-79 was expected to be of the order of 315,000 nos. However, having regard to the present status of the automotive sector in general and passenger cars in particular, the earlier estimates would seem to be high. Nevertheless, the capacity likely to materialise is in excess of the demand estimated earlier. This item does not, therefore, offer scope for new entrepreneurs.

CLUTCH ASSEMBLY AND CLUTCH PLATES

1.1. There are, at present, 4 units licensed for the manufacture of clutch assembly and clutch plates for a capacity of 366,720 nos. and 751,680 nos. per annum respectively. Letters of intent have been issued for an additional capacity of 3 lakh nos. of clutch assembly and 860,000 nos. of clutch plates.

1.2. The production of clutch assembly and clutch plates during the last three years has been as under:

Year	Clutch assembly	Clutch plates
1973	156,454	381,943
1974	151,336	360,727
1975	160,000	400,000

1.3. Although separate figures of import of clutch assembly and clutch plates are not available, it is estimated that by and large except for certain specialised types, the requirements are being met through indigenous sources. While some imports by manufacturers of tractors have taken place, the existing manufacturers are diversifying their production to meet these specific requirements.

1.4. Main raw materials required for the manufacture of clutch assembly are alloy steel plates and sheets. For clutch plates, friction material would also be required in addition to steel. Except for certain categories of steel, other items of raw material are available indigenously.

Future Scope

2.1. According to an earlier estimate by the Task Force, demand for clutch plates and clutch assembly by 1978-79 was expected to be of the order of 850,000 nos. and 400,000 nos. respectively. Recently, the Development Council for Automobiles has carried out an exercise on the demand for various products having regard to the present status of the industry, particularly taking into account the steep fall in the production of passenger cars. Although the final assessment of the demand for various products has not been made, the indications are that the demand for clutch assembly would be about 200,000 to 230,000 nos. by 1978-79. In so far as clutch plates are concerned, the demand is expected to be of the order of 600,000 nos. and this would include supplies of plates for 2-wheelers as well. The capacity already approved should be able to take care of the projected demand for both the items. The item does not, therefore, offer scope for new entrants.

FRICTION MATERIALS (Brakelinings and Clutch Facings)

Present Status

1.1. There are, at present, six units manufacturing brakelinings and clutch facings with a total licensed and installed capacity of 5155 tonnes. One of the existing units has been allowed an additional capacity of 1040 tonnes by way of expansion and a new unit has been licensed with a capacity of 1500 tonnes per annum. Letters of intent have been issued to three more firms for a total capacity of 1050 tonnes. The production of brakelinings during the last three years was as under:

1973	2474 tonnes
1974	3300 tonnes
1975	2500 tonnes

1.2. Almost the entire requirements of brakelinings and clutch facings are presently being met from indigenous production. A beginning has also been made in the export of brakelinings. The current level of exports is estimated at Rs. 30 lakhs per annum.

1.3. The most important raw material required for the manufacture of brakelinings and clutch facings is asbestos fiber, which is being imported. Certain other raw materials mainly as binding material such as synthetic rubber and special resins are also required.

Future Scope

2.1. The total licensed capacity of the units in production as well as the units likely to go into production is sufficient to meet the anticipated demand by 1978-79, which was earlier assessed by the Task Force

as 5500 tonnes per annum. The item does not offer any scope for the new entrants.

PROPELLAR SHAFTS

Present Status

1.1. There are, at present, 4 units manufacturing propellar shafts with a total installed capacity of 315,000 nos. In addition, letters of intent have been issued for a capacity of 260,000 nos. to two units and both the units have made substantial progress towards the implementation of their projects.

1.2. Production of propeller shafts during the last three years has been as under:

1973	92,472 nos.
1974	98,645 nos.
1975	150,000 nos.

1.3. In so far as the requirements of propeller shafts for passenger cars, commercial vehicles and tractors are concerned, these are met indigenously. There are certain heavy duty propeller shafts required for off the high way vehicles which are still being imported. However, the existing manufacturers have taken steps to diversify their production to take up their manufacture as well.

1.4. The main raw materials required for the production of propeller shafts are steel tubes and forgings quality steel. Although these are available locally, certain qualities are being imported to supplement indigenous availability.

Future Scope

2.1. According to an earlier forecast made by the Task Force, the requirement of propeller shafts by 1978-79 was reckoned at a little over 300,000 nos. As against this, effective capacity likely to materialise is 575,000 nos. The item does not, therefore, offer scope for new entrants.

AUTOMOTIVE WHEELS

Present Status

1.1. There are two units manufacturing automotive wheels with an installed capacity of 7 lakh nos. One of the units has also been given an industrial licence for additional capacity to the extent of 430,000 nos. The other unit has been issued a letter of intent for expansion for an additional capacity of 150,000 nos. Besides these two existing units, a letter of intent has also been issued to a new unit for an annual capacity of 310,000 nos.

1.2. The production of automotive wheels during the last three years was as under:

1973	602,305 nos.
1974	780,594 nos.
1975	800,000 nos.

1.3. The raw materials required for wheels are steel plates, sheets, rim and lock rim sections. Hitherto, these were being imported but attempts have already been made to develop some of these materials indigenously. It is expected that in about 12-18 months, 60-70% of the requirements could be obtained from indigenous sources. With better availability of indigenous raw materials, the industry may be in a position to make some impact on the export market.

Future Scope

2.1. The demand for automotive wheels by 1978-79 was estimated to be of the order of 19.13 lakh nos. However, as the target of production for passenger cars has been scaled down by more than 100,000 nos., the demand is not likely to be more than 15 lakh nos. As the existing capacity and that on the anvil is more than adequate to meet this demand, the item does not offer scope for new entrepreneurs.

DASHBOARD INSTRUMENTS

Present Status

1.1. There are, at present, 3 units manufacturing dashboard instruments having a licensed capacity of 17.20 lakh nos. In addition, one more unit has been given a letter of intent for the manufacture of dashboard instruments with an annual capacity of 260,000 nos. Besides, one unit would be specialising in the manufacture of speedometers required for scooters and has been issued letter of intent for the manufacture of one lakh nos. per annum. This unit is expected to go into production during the current year.

1.2. Production of dashboard instruments during the last three years is given below:

1973	1,026,673 nos.
1974	1,174,816 nos.
1975	1,100,000 nos.

1.3. The requirement of dashboard instruments for all the vehicles is met through indigenous sources. These are essentially required as original equipment. The design of the dashboard instruments manufactured in the country being different to those required abroad, there is no scope for significant exports. However, one of the manufacturers has recently started exporting a few select instruments and the current year's export is expected to be about Rs. 20 lakhs.

Future Scope

2.1. The Task Force estimated the demand of dashboard instruments at 4 lakh sets corresponding to 16 lakh nos. At that time, it was envisaged that the demand for passenger cars will be high and hence the requirement of dashboard instruments for the passenger car sector would be of the order of 160,000 sets. But the production of cars by 1978-79 is expected to be much lower than what was envisaged earlier. In view of this, the demand for dashboard instruments by 1978-79 is not expected to be more than 12 lakh nos. Having regard to the capacity already established and that on the anvil, the item does not offer scope for further licensing.

GASKETS

Present Status

1.1. There are three units manufacturing gaskets with a licensed and installed capacity of 1280 lakh nos. Letters of intent have been issued to 5 more units for a total capacity of 1075 lakh nos. The progress in implementing the additional approved capacity has not been satisfactory.

1.2. The production of gaskets during the last three years was as under:

1973	690 lakh nos.
1974	900 lakh nos.
1975	800 lakh nos.

1.3. Limited imports of gaskets have taken place in the past. During 1973-74 and 1974-75, the imports were of the order of Rs. 57.79 lakhs and Rs. 57.60 lakhs respectively.

1.4. Export of gaskets has also since commenced. During 1974-75, exports exceeded Rs. 20 lakhs. The same level of export is expected during the current year.

1.5. Some of the raw materials required for the manufacture of gaskets namely, cork sheets, asbestos sheets and certain other gasketing materials are still being imported.

Future Scope

2.1. The demand for gaskets, according to the Task Force, is expected to be of the order of 1350 lakh nos. by 1978-79 and the corresponding capacity that will have to be created would be a little over 1800 lakh nos. Having regard to the unsatisfactory progress made by the existing holders of the letters of intent, well conceived and technically viable schemes could be considered on merits.

SHOCK ABSORBERS

Present Status

1.1. There are at present, five units in production

with a total licensed and installed capacity of 24.35 lakh nos. Two more units have been given letters of intent for a capacity of 10 lakh nos.*

1.2. The production of shock absorbers during the last three years was as under:

1973	1,471,674 nos.
1974	1,797,536 nos.
1975	1,700,000 nos.

1.3. The indigenous industry has been in a position to meet the entire production of the country. Some of the units have also made significant progress in promoting exports of their products. The current level of exports is between Rs. 50-55 lakhs per annum.

1.4. The main raw materials required for the manufacture of shock absorbers are certain types of alloy steel including strips, ERW tubes and certain plating materials. Except tubes which are imported, the other items are available locally.

Future Scope

2.1. According to the Task Force, the demand for shock absorbers by 1978-79 was estimated to reach about 63 lakh nos. per annum. Although the demand for passenger cars has come down, there has been a spurt in demand for scooters. As the effective capacity likely to be available by 1978-79 falls short of the estimated demand and furthermore this being an item with export potential, well-prepared schemes could be considered on merits in this field. Foreign collaboration may also be considered on merits.

GEARS

Present Status

1.1. There are, at present, 8 units manufacturing automotive gears. Out of these, six units have been licensed for a capacity of 8,550 M.T. and two units have been registered for a capacity of 250 tonnes. Additional licences have been issued to three more units covering a capacity of 3,610 M.T. Out of these, one unit has recently gone into production. The additional capacity covered by letters of intent, both for expansion as well as for the establishment of new units, is of the order of 8,406 M.T. The total capacity on the anvil is approximately 22,000 M.T. Some of the vehicle manufacturers including tractor manufacturers have their own captive capacity for the manufacture of gears. By and large the independent manufacturers of automotive gears have been catering to the replacement demand except in the case of tractors, where some of the units are meeting original equipment requirements as well. The production of automotive gears during the last three years was as under:

1973	2,194 tonnes
1974	2,747 tonnes
1975	2,500 tonnes

1.2. The main raw material required for the production of automotive gears is forging quality steel. This is now available indigenously. The industry, however, requires specialised cutters of gleason equipment, which have to be imported.

1.3. The indigenous industry is now in a position to meet the entire requirements. A beginning has also been made by some of the manufacturers to export gears. It is expected that during the current year the industry may be in a position to export gears for a value of about Rs. 25 lakhs.

Future Scope

2.1. The requirement of gears by 1978-79, as estimated by the Task Force, was of the order of 21,300 M.T. Taking into consideration the captive capacity available with the vehicles manufacturers and also the specialised capacity available with independent units, the field does not offer scope for new entrepreneurs.

CARBURETTORS

Present Status

1.1. There are five units manufacturing carburettors with a total licensed and installed capacity of 916,000 nos. Three more firms have been issued industrial licences for a capacity of 460,000 nos. These three schemes are in different stages of implementation and are likely to commence production during 1976-77. Letters of intent have also been issued to five more units for a total capacity of 460,000 nos.

1.2. Production of carburettors during the last three years was as under:

1973	255,028 nos.
1974	279,550 nos.
1975	225,000 nos.

1.3. In terms of indigenisation, the industry is almost self-sufficient and imports are confined to a few minor components, the value of which is less than $\frac{1}{2}$ %. One of the main imported raw material required for carburettors is special high purity zinc.

Future Scope

2.1. The demand for carburettors by 1978-79 has been reckoned at 10.75 lakh nos. The effective capacity likely to materialise by 1978-79 is of the order of 13.76 lakh nos., even without taking into account the capacity covered by letters of intent. In view of this, the industry does not offer scope for new entrants.

ENGINE VALVES

Present Status

1.1. There are seven firms in production manufactur-

ing engine valves with a total licensed and installed capacity of 127.3 lakh nos. In addition, one more unit has been registered with a capacity of 7.5 lakh nos. Capacity covered by letters of intent is 78.5 lakh nos. The production during the last three years was as under:

1973	53.3 lakh nos.
1974	45.2 lakh nos.
1975	60.5 lakh nos.

1.2. The entire requirements of engine valves are met from indigenous sources. This is one of the items which has a steady demand in the export market. During 1974-75, the exports amounted to Rs. 16 lakhs. During 1975-76, exports are expected to exceed Rs. 20 lakhs.

Future Scope

2.1. Against an estimated demand of 124 lakh nos. by 1978-79, the capacity of the units in production is 127.3 lakh nos. and additional capacity covered by letters of intent and registration is 86 lakh nos. There is thus no scope for further licensing in this industry.

BIMETAL BEARINGS

Present Status

1.1. There are, at present, 4 firms manufacturing bi-metal bearings having a total capacity of 142.4 lakhs nos. Out of the four firms, manufacture from the raw material stage is undertaken by two firms, whereas the other two firms start from the strip stage. In addition to the existing firms in production, three letters of intent covering a total capacity of 135.2 lakh nos. have been issued.

1.2. The production of bi-metal bearings during the last two years has been as under:

1974	117.7 lakh nos.
1975	120.0 lakh nos.

1.3. Apart from the demand from the original equipment manufactures, there is a substantial requirement for these bearings from the replacement market. In order to supplement the indigenous production, imports were permitted during the last two years.

1.4. The main raw materials required for the manufacture of bi-metal bearings are non-ferrous metals like copper, tin and lead. The requirements of these are at present met through imports.

Future Scope

2.1. The demand for bi-metal bearings has been tentatively placed at about 350 lakh nos. by 1978-79 and it will be necessary to establish a capacity to the extent of 500 lakh nos. to achieve the above production. As against this, the total capacity on the anvil including that of the units in production is a little over 240 lakh

nos. While some schemes are already under consideration, there is some scope for further capacity. Entrepreneurs are, however, advised to take note of the sophisticated technology involved in this industry.

PISTONS, PISTON RINGS AND PISTON PINS

Present Status

1.1. Number of units manufacturing pistons, piston rings and piston pins, capacity licensed and capacity covered by letters of intent together with capacity likely to materialise by 1978-79 is given below:

(All figures in lakhs nos.)

Description of the item	No. of units in production	Capacity Licensed	Production		
			1973	1974	1975
Pistons	6	48.40	21.20	22.82	27.56
Piston Rings	6	339.00	197.60	184.94	230.60
Piston Pins	7	62.40	24.50	28.23	53.28

Additional capacity approved:

(All figures in lakh nos.)

Description of the item	No. of units		Letters of intent	Additional capacity likely to materialise by 1978-79	
	Ind.	Ind. Licences		Letters of intent	Total
Pistons	1	3	10.0	16.0	26.0
Piston Rings	2	5	340.0	266.0	606.0
Piston Pins	1	2	10.0	13.0	23.0

1.2. Pistons and piston rings have been among the few items for which the indigenous production has not kept pace with the growing demand. Imports had, therefore, to be resorted to for supplementing the indigenous availability. During 1973-74, imports were of the order of Rs. 70 lakhs, which came down to Rs. 35 lakhs during 1974-75. During 1974-75, exports were of the order of Rs. 12 lakhs. It is expected that there would be an increase in the quantum of exports.

1.3. The main raw material required for the manufacture of pistons is aluminium, which is available indigenously. However, certain alloying elements like silicon, are to be imported. For the production of piston pins, certain alloy steels have to be imported to supplement indigenous availability. In so far as piston rings are concerned except for certain alloying elements like nickel and certain inoculants, there are no imports.

Future Scope

2.1. According to the Task Force, the demand projections by 1978-79 for pistons, piston pins and

piston rings and corresponding capacity that is to be created to meet this demand are given below:-

Item	Demand by 1978-79 (in nos. / lakhs)	Corresponding Capacity
Pistons	64.50	88.0
Piston Rings	380.00	508.0
Piston Pins	64.50	88.0

2.2. Although there has been scaling down of production targets of certain items in the automotive field, like passenger cars, this is not likely to have a major effect on the projections given above, as a significant portion of the production of pistons and piston rings would be for catering to replacement and spares demand. As a result of the review recently undertaken by DGTD, it is estimated that effective capacities likely to materialise, including the capacities of the firms in production for pistons, piston pins and piston rings by 1978-79 are 74.4 lakh nos., 93.5 lakh nos. and 954 lakh nos., respectively.

It will, therefore, be seen that in so far as pistons and piston pins are concerned, there is no need to create additional capacity. However, consequent to the rapid increase in production of 2-wheelers, particularly scooters, there has been a significant shortage in the availability of pistons and piston rings for two wheelers. Well-conceived proposals for the manufacture of pistons and piston pins particularly catering to the requirement of the two-wheelers will be considered. In so far as piston rings are concerned, one more unit is likely to go into production during the current year, and there is no scope for further licensing.

FUEL INJECTION EQUIPMENT

Present Status

1.1. Fuel Injection Equipment consisting of pumps, nozzles, nozzle holders, delivery valves and elements, is important components required for the production of diesel engines. There are 3 units manufacturing complete fuel injection equipments. In addition, there is one unit which is, at present, confining its activities for meeting the requirements of the spares market. The total licensed capacity of the firms in production is given below:-

Multi-cylinder pumps	1.63 lakh nos.
Single cylinder pumps	7.96 lakh nos.
Elements	56.96 lakh nos.
Delivery valves	48.96 lakh nos.
Nozzles	63.20 lakh nos.
Nozzle holders	13.74 lakh nos.

1.2. In addition to the above, letters of intent have been granted for the following capacities:

Multi-cylinder pumps	1.65 lakh nos.
Single cylinder pumps	4.10 lakh nos.
Elements	25.00 lakh nos.
Delivery valves	20.00 lakh nos.
Nozzles	27.00 lakh nos.
Nozzle holders	7.80 lakh nos.

1.3. Production of fuel injection equipments including components, during the last three years has been as under:

	1973	1974	1975
Multi cylinder pumps	99,047	125,664	153,400
Single cylinder pumps	438,688	503,943	549,600
Nozzles	2,795,712	2,774,543	3,329,700
Nozzle holders	675,760	698,907	903,400
Delivery valves	3,218,340	3,635,274	4,029,700
Elements	2,311,876	2,753,546	3,480,900

1.4. By and large, the requirements for fuel injection equipment are met from indigenous production. Moreover, it is the single largest equipment among ancillaries that is being exported. Exports during the last three years have been as under:

1973	Rs. 366.81 lakhs
1974	Rs. 738.86 lakhs
1975	Rs. 730.00 lakhs

Future Scope

2.1. The Task Force had indicated the following targets of production and capacity for the year 1978-79:-

Single cylinder pumps	4.50 lakh nos.	3.35 lakh nos.
Multi cylinder pumps	2.50 lakh nos.	1.90 lakh nos.
Nozzles	96.00 lakh nos.	72.50 lakh nos.
Elements	88.00 lakh nos.	56.50 lakh nos.
Delivery Valves	88.00 lakh nos.	66.50 lakh nos.
Nozzle holders	16.50 lakh nos.	12.40 lakh nos.

2.2. Adequate capacity has been approved for the manufacture of single and multi cylinder pumps. There is some scope for further capacity for components, particularly for the replacement market.

Manufacture of fuel injection equipment requires a high degree of technical and managerial expertise and involves heavy investment. Progress of implementation of approved schemes will be watched before licensing further capacity during 1976-77.

AUTO ELECTRICAL EQUIPMENT

(Starter Motors, Generators, Voltage Regulators and Distributors).

In this category, the more important items are Starter Motors, Generators, Voltage Regulators and Distributors. Present status and future scope in respect of these items is as below:

Present Status

1.1. There are five units manufacturing starter motors and generators, while there are six units manufacturing voltage regulators, Distributors are being manufactured by three units. The approved capacities are as under:

Starter motors	242,000 nos.
Generators	266,000 nos.
Voltage regulators	541,000 nos.
Distributors	132,500 nos.

1.2. The production during the last three years was as under:

Year	Starter Motors	Generators	Voltage Regulators	Distributors
1973-74	150,863	162,234	331,525	90,984
1974-75	109,803	123,171	243,631	191,096
1975-76	200,000	150,000	250,000	150,000

1.3. In addition to the licensed/registered capacities, further capacities have been approved by letters of intent as under:

Starter motors	120,000 nos.
Generators	170,000 nos.
Voltage regulators	170,000 nos.
Distributors	100,000 nos.

Future Scope

2.1. According to the Task Force on Auto Ancillaries, the demand for 1978-79 is expected to be as follows:

Starter motors	415,000 nos.
Generators	415,000 nos.
Voltage regulators	900,000 nos.
Distributors	220,000 nos.

On account of the low off-take of petrol driven vehicles, the demand is likely to be lower than that mentioned above. Progress of implementation of the approved schemes will be watched before considering further capacity in these industries.

CRANK SHAFTS

1973

Rs. 1500 lakhs

1974

Rs. 2590 lakhs

1975

Rs. 2800 lakhs

Present Status

1.1. There are, at present, two independent units manufacturing crank shafts having a total capacity of 37,000 nos. In addition to these specialised units, some of the vehicle manufacturers are also producing crank shafts to meet their own requirements both as original equipment fitment as well as spares. It is estimated that the captive capacity of such units is about 60,000 nos. at present. In addition to the existing units in production, industrial licences have been issued to two more units for a total capacity of 46,000 nos. Further, letters of intent have also been issued to two units covering a capacity of 50,000 nos. It may also be relevant to mention that some of the vehicle manufacturers may be expanding their capacity for crank shafts consistent with and corresponding to the expansion approved for the manufacture of vehicles. It is anticipated that the captive capacity may amount to about 100,000 nos. by 1978-79.

1.2. Crank shafts is an item, which offers good potential for exports. It is anticipated that during the current year export of crank shafts may exceed Rs. one crore.

1.3. The main raw material required for crank shafts is forging quality alloy steel. This is available locally.

Future Scope

2.1. It is estimated that the requirements of crank shafts by 1978-79 may be between 3.0 and 3.5 lakh nos. per annum. The total capacity available may be of the order of 233,000 nos. Having regard to the heavy investment on capital equipment and the sophisticated technology involved, the existing units including the captive units would be encouraged to expand their capacity.

FISHINGS TRAWLERS, BOATS, CRAFTS, ANCILLARIES FOR BOATS/SHIP BUILDING

Present Status

1.1. The facilities required for the manufacture of fishing trawlers and other types of boats and crafts are interchangeable. There are, at present, 14 yards fabricating coastal boats and crafts including fishing trawlers. These yards also undertake ship repair work. There is one unit specifically licensed to manufacture fishing trawlers with a capacity of 12 nos. per annum. Letters of intent for the manufacture of fishing trawlers have been issued for an additional capacity of 41 nos. per annum to two units in the State Government sector.

1.2. The production during the last 3 years was as under:

Future Scope

2.1. The demand for fishing trawlers during the Fifth Plan period has been estimated at 50 nos. per annum. Progress of implementation of the approved schemes will be watched before licensing further capacity in this field.

2.2. All the boat/ship building yards buy various items of machinery and equipment for fitment in their boats from outside sources. While a number of such ancillary items have already been developed in the country and are being supplied to the yards regularly, there are others where adequate indigenous capacity is not available to meet the requirements of the industry. A list of such ancillaries where additional indigenous capacity needs to be created to meet the requirements of the fabricators of fishing trawlers, etc., is given below:

1. Propeller assembly (fixed and variable pitch) complete with shaft.
2. Steering gears (both mechanical and electrical hydraulic).
3. Stern gear (light and heavy duty).
4. Rudder stock (light and heavy duty).
5. Trawl winches for fishing trawlers.
6. Anchor windlass.
7. Capstan.
8. Towing hook.
9. Towing winch.
10. Navigational lights.
11. Clear view screen.
12. Life boat compass.
13. Breathing apparatus.
14. Sextant.
15. Air whistle.
16. Marine clocks.
17. Marine diesel engines especially higher horse power range.
18. Auxiliary engines.
19. Electronic equipment for fish finding such as echosounders, fish finders, sonar, etc.
20. Navigational equipment including RT.
21. Hydrographic equipment.

3.1. Proposals for foreign collaboration for the manufacture of fishing trawlers and the ancillary items can be considered on merits.

BICYCLES

Present Status

1.1. The capacity covered by industrial licences and

registration with DGTD is 41.19 lakh nos. of complete bicycles. At present, 14 units are engaged in the manufacture of bicycles with an installed capacity of 40.19 lakh nos. The organised sector accounts for 80% of the total production of bicycles in the country. The small scale sector has over 300 units assembling bicycles and engaged in manufacture of parts and accessories. The capacity for complete bicycles in the small scale sector is estimated to be 5 lakh nos.

1.2. The production of bicycles during the last three years has been as under:

	<i>Quantity</i>	<i>Value</i>
1973-74	25.75 lakh nos.	Rs. 46.75 lakhs
1974-75	23.83 lakh nos.	Rs. 54.01 lakhs
1975-76	22.50 lakh nos.	Rs. 57.00 lakhs

1.3. The export of bicycles and their components during the last three years were as under:

<i>Year</i>	<i>Bicycles</i>		<i>Bicycle</i>	<i>Total</i>
	<i>lakh nos.</i>	<i>Value</i> <i>Rs. lakhs</i>	<i>Parts</i> <i>Rs. lakhs</i>	
1972-73	2.16	300	758	1058
1973-74	1.72	265	1200	1465
1974-75	1.55	352	1719	2084

Future Scope:

2.1. The Planning Commission has projected the annual production requirement in 1978-79 at 35 lakh nos. of bicycles to meet the internal demand and exports. With present capacity utilisation at about 56% and having regard to the capacity already installed, there is no scope for licensing additional capacity unless the scheme is export-oriented. Proposals for foreign collaboration can be considered on merits for the manufacture of special components like multi-speed hubs, clusters, coasters brakes, caliper brakes, rick rims, balloon rims, etc. which are required in the production of three speed light weight bicycles (sports light roadsters), racer models, etc.

INDUSTRIAL MACHINERY

TEXTILE MACHINERY

Present Status

1.1. The textile machinery industry is presently manufacturing the entire range of cotton spinning weaving and processing machinery of high quality. According to the recent estimates, the licensed capacity is of the order of Rs. 255 crores while the installed capacity is of the order of Rs. 213 crores per annum.

1.2. At present, 117 units are in production in the organised sector and out of these, 30 include hosiery machinery manufacturers. There are also 220 manufacturers of textile components/accessories/spares.

1.3. The production of complete textile machinery and accessories/components during the last 3 years has been as under:

Year	Complete textile machinery	Components/ accessories
1972-73	Rs. 32.41 crores	Rs. 38.53 crores
1973-74	Rs. 48.80 crores	Rs. 43.86 crores
1974-75	Rs. 77.24 crores	Rs. 49.80 crores

1.4. The exports of textile machinery during the last 3 years were as follows:

Year	Textile machinery and accessories including knitting machinery
1972-73	4.35 crores
1973-74	4.81 crores
1974-75	17.27 crores

Future Scope

2.1. The draft Fifth Plan target for cotton textile machinery is Rs. 80 crores. The capacity already installed together with the capacity expected to materialise would be adequate to meet the demand of general purpose textile machinery. However, additional capacity needs to be created for the manufacture of shuttleless looms/open hand spinning machinery, woolen machinery and hosiery machinery.

RAYON AND SYNTHETIC FIBRE MACHINERY

Present Status

1.1. There are eight firms in production of rayon machinery covering continuous filament yarn, staple fibre plants, rayon spinning machinery and synthetic fibre plants. Production of polymerisation, waste reco-

very and spinning equipment, spinnerettes, draw twisters and upwisters, has also commenced recently. The total licensed and installed capacity in this field is about Rs. 25 crores.

1.2. The production during the last three years was as under:

Year	Synthetic fibre machinery	Rayon machinery
1972-73	Rs. 52 lakhs	Rs. 214 lakhs
1973-74	Rs. 75 lakhs	Rs. 475 lakhs
1974-75	Rs. 152 lakhs	Rs. 281 lakhs

Future Scope

2.1. Based on the targets of production of synthetic fibre in the draft Fifth Five Year Plan, it is estimated that machinery worth Rs. 21.6 crores will be required over the period. Having regard to the limitations of the capacity already approved, there is scope for setting up of additional capacity in this field as also for the expansion and diversification of the existing units.

SUGAR MILL MACHINERY

Present Status

1.1. At present, there are seven firms licensed to manufacture complete sugar plants with a total capacity of 21 plants. There are additional firms licensed for manufacture of individual items of sugar machinery such as diffusion plants, vaccum filters, etc.

1.2. The past production has been as under:

1973-74	Rs. 20.00 crores
1974-75	Rs. 27.04 crores
1975-76	Rs. 31.00 crores

Future Scope

2.1. The draft Fifth Plan targets for capacity and production are Rs. 45 crores and Rs. 40 crores respectively. To bridge the gap between the demand and availability, a letter of intent for the manufacture of 6 plants per year and an industrial licence for the manufacture of 1650 tonnes of different items of sugar mills machinery per year have been issued. Besides, a few parties have also been registered under the automatic registration scheme for the manufacture of individual items of sugar machinery.

2.2. The major units engaged in this line have composite workshops wherein they manufacture other

items of machinery also; like cement machinery. Some of the indigenous manufacturers are in a position to manufacture sugarcane/beet diffusion plants.

2.3. There is scope for substantial expansion and diversification of existing units. Applications will be considered on merits.

COAL AND OTHER MINING MACHINERY

Present Status

1.1. There are at present 12 units manufacturing mining and coal washery equipment with a total licensed capacity of Rs. 37 crores per annum. The indigenous manufacturers are engaged in the manufacture of mining machinery equipment such as coal cutters, loaders, conveyors, trolleys and locomotives, haulages, electric winders, mine axial fans, booster fans, pumps, sand pumps, etc. In addition, letters of intent has been issued to two units for the manufacture of hydraulic and friction props.

1.2. Production during the last three years was as under:

1973	9.16 crores
1974	4.78 crores
1975	8.00 crores

1.3. The import of various items of mining machinery during the last three years was as under:

1972-73	Rs. 2.16 crores
1973-74	Rs. 1.84 crores
1974-75	Rs. 1.62 crores

Future Scope

2.1. The Fifth Plan targets of capacity and production are Rs. 35 crores and Rs. 24 crores respectively by 1978-79. There is scope for the manufacture of certain specialised and sophisticated equipments not yet manufactured indigenously, preferably as a measure of diversification.

2.2. Some of the areas where there is scope for creation of additional capacity are the following:

- Walking dragline
- Shuttle cars
- Drum shearers
- Blast hole drills above 4' diameter
- Pneumatic rocker shovel.

CEMENT MACHINERY

Present Status

1.1. At present, there are 11 units engaged in the production of cement machinery. The total licensed/registered capacity is 18 complete plants of capacity

ranging from 600-1200 tonnes per day. The major units in this line have composite workshops, wherein they manufacture other items of industrial machinery like sugar mill machinery etc.

1.2. The past production has been as under:

1973	Rs. 6.35 crores
1974	Rs. 10.17 crores
1975	Rs. 7.00 crores

Future Scope

2.1. The draft Fifth Plan targets for capacity and production are Rs. 40 crores and Rs. 25 crores respectively.

2.2. Production of cement machinery has suffered on account of the steep rise in capital costs of a new cement plant, resulting in paucity of orders on the machinery manufacturers.

2.3. There is no scope for setting up additional capacity in this industry.

CHEMICAL AND PHARMACEUTICAL MACHINERY

Present Status

1.1. There are 67 units in the private sector and 3 units in the public sector engaged in the manufacture of various items of chemical machinery, with a total licensed capacity of Rs. 98.26 crores. The capacity in the public sector is Rs. 28.37 crores.

1.2. In addition to the existing manufacturers, additional capacity has been covered by letters of intent granted to 9 parties to the extent of Rs. 13.80 crores per annum. Besides, 23 units have also been registered with the DGTD under the automatic registration scheme for the manufacture of various items of chemical machinery.

1.3. The production during the last three years was as under:

1973	Rs. 31.38 crores
1974	Rs. 40.60 crores
1975	Rs. 50.00 crores

1.4. Many of the manufacturers have technical collaboration with well known firms, and they are in a position to undertake fabrication of a wide variety of equipments.

Future Scope

2.1. The demand for chemical plant and equipment including heavy fabricated machinery is co-related to the programme of user industries like fertilizer, petroleum refining, petrochemical, heavy organic chemicals, drugs and pharmaceuticals, etc. The capacity and production targets for 1978-79 are Rs. 115 crores

and Rs. 80 crores respectively. The production target of Rs. 80 crores for 1978-79 is a substantial step up from the level of production from Rs. 50 crores during the year 1975.

2.2. In a recent study, the requirements of fabrication facilities for the different types of equipments during the Fifth and Sixth Plan period have been estimated as under:

<i>Plan period</i>	<i>Pressure vessels</i>	<i>Heat exchanger</i>	<i>Tankage and low pressure fabrications</i>	<i>Waste heat boilers</i>	<i>(In tonnes) Other (dyers, filters etc.)</i>
Fifth Plan	5065	13440	161620	—	13455
Sixth Plan	24600	25855	216150	8825	16450
Total	29665	39295	377770	8825	29905
Grand Total					4,85,460 tonnes

N.B. The above figures exclude the requirements for C.I. vessels and heat exchangers, which are about 17,000 tonnes over the Plan Period, and can be met by the foundry industry. Moreover, refinery furnaces have been excluded which involve only structural fabrication to support pipe bundles, the latter being imported at present.

2.3. The overall requirements for chemical equipment during the Fifth and Sixth Plan periods, therefore, work out to 485,460 tonnes i.e. on an average of 48,546 tonnes per annum. It is estimated that the available facilities in the country for the above mentioned items out of the existing capacity are of the order 30,600 tonnes per annum indicating thereby the need for creating additional capacity. The additional capacity should cater to the demand for high pressure vessels, special heat exchangers, specially fabricated valves, agitators, evaporators of special material, gas holders, waste heat boilers, etc.

2.4. There is technology gap in the field of specialised items. The Government policy permits foreign technical collaboration on a selective basis. The chemical plant and machinery industry caters to the process chemical industries and the main parameters are laid down by the latter. The manufacture of such machinery is essentially custom built. This highlights the need for the development of an important area viz. design consultancy service. The units which are already in production are expected to provide this service to a large extent through their expertise and experience. This needs to be further supplemented by the Research and Development efforts of such engineering units.

2.5. To bridge the gap in capacity, preference would be given to the existing manufacturers who are already in the field and have gained sufficient experience to take up the manufacture of these items under expansion programmes. The entrepreneurs having composite facilities and having developed similar technology of manufacture, may also diversify into this field with advantage.

PULP AND PAPER MAKING MACHINERY

Present Status

1.1. There are, at present, 25 units licensed for the manufacture of paper plant and components of paper machinery. Among these, only 15 units are in a position of fabricate complete pulp and paper plant. There are only 3 units which are considered capable of supplying pulp and paper plant of 200 tonnes per day capacity. The capability of the other units is primarily for medium and small size plants.

1.2. The total licensed capacity is equivalent to Rs. 71.00 crores per annum and the installed capacity is Rs. 35.70 crores per annum. The production in 1975-76 was of the order of Rs. 20 crores. Additional capacity covered by letters of intent issued to 10 units is of the order of Rs. 52.50 crores per annum.

Keeping in view the progress of implementation of the approved schemes, the total capacity that may materialise by 1978-79 is of the order of Rs. 60 crores worth of machinery per annum.

1.3. Import of pulp and paper machinery during the last three years was as under:

1972-73	Rs. 4.10 crores
1973-74	Rs. 7.28 crores
1974-75	Rs. 9.18 crores

Future Scope

2.1. Taking into consideration the licensed capacity likely to be established for paper and paper board during the Fifth Plan period, the draft Fifth Plan had indicated the capacity and production targets for machinery at Rs. 45 crores and Rs. 36 crores respectively to be achieved by 1978-79. The production target indicated is equivalent to 3 integrated pulp and paper plants of 150 tonnes per day capacity per annum. The Task Force had assessed that with the implementation of the schemes already approved, the indigenous manufacturers of pulp and paper plant of small size as well as higher sizes such as 100, 150, and 200 tonnes per day capacity will be established. It was also assessed by the Task Force that additional capacity was needed for paper and pulp plants of 150 and 200 tonnes per day capacity. At present, there is a sizeable demand for small capacity pulp and paper plants, and most of the indigenous machinery manufacturers are gearing themselves up for the manufacture of plants ranging from 10 to 30 tonnes per day capacity.

There are gaps in the present range of manufacture in terms of specialised individual equipments as under:

(1) Clipper House

- (i) Chip washers
- (ii) Spiral chippers
- (iii) Wood grinders

(2) Digester House

- (i) Continuous digesters
- (ii) Chip packers
- (iii) Hot stock disc refiners

(3) Paper Machine

(a) Wire Part

- (i) Dandy Rolls

(b) Press Part

- (i) Swimming rolls
- (ii) Bow spreader rolls
- (iii) Granite rolls
- (iv) Stranite microrock, grooved and fabric press roll.

(c) Dryer Part

- (i) Drying cylinders
- (ii) Chrome-plated or teflon coated cylinders
- (iii) MG cylinders with pressure rolls

(d) Finishing House

- (i) Super calendars
- (ii) Slitter rewinders

3.1. The manufacture of vertical castings of large size for meeting the requirements of MG cylinders required by the paper industry—also needs to be established, provided the machining capacity is also set up. Foreign technical collaboration may be considered on merits for individual items which are yet to be developed.

CERAMIC MACHINERY (including Bricks and Tiles making)

Present Status

1.1. There are 5 units registered/licensed with a total capacity of Rs. 4.4 crores to manufacture various items of ceramic machinery. Out of these, 4 units are in production. One of the units is engaged in manufacture of automatic plants for making bricks and tiles. In addition, the capacity covered by letters of intent, is of the order of Rs. 3.4 crores. The present installed capacity is approx. Rs. 1 crore. Steps have been taken to establish production of items of machinery like toggle presses, high capacity hydraulic presses, etc. which is likely to commence in 1976-77.

1.2. During the last three years, production has been as under:

1973	Rs. 50 lakhs
1974	Rs. 95 lakhs
1975	Rs. 95 lakhs

Future Scope

2.1. The Task Force on Industrial Machinery had projected the capacity and production targets for 1978-79 as under:

Capacity	Rs. 13 crores
Production	Rs. 10 crores

Additional capacity is required to be set up for the following items:

- (a) High capacity de-airing pugmills.
- (b) Heavy duty filter presses.
- (c) Counter current mixers.
- (d) Specialised equipment required for sanitaryware, crockery and insulators.

2.2. Proposals for foreign collaboration for manufacture of ceramic machinery could be considered on merits.

2.3. The demand for individual items is, however, limited and it would not be feasible to set up separate capacity exclusively for these items. The existing units manufacturing industrial machinery will be encouraged to manufacture the above mentioned specialised items through diversification.

LEATHER AND FOOTWEAR MACHINERY

Present Status

1.1. At present, there are seven units registered to manufacture leather, and footwear machinery for a total capacity of Rs. 420 lakhs per annum. Out of these only three firms are in production, with an installed capacity of Rs. 103 lakhs per annum. The production of such machinery during the last three years was as under:

1973	Rs. 24 lakhs
1974	Rs. 31 lakhs
1975	Rs. 26 lakhs

Substantial imports of leather processing machinery are taking place.

Future Scope

2.1. The demand for leather processing machinery during the Fifth Plan period had been assessed at Rs. 600 lakhs per annum. There is considerable scope for licensing of additional capacity in this field. There is an increasing demand for modern sophisticated machinery. Some of the items for which additional capacity is required are given below:

- (i) Hydraulic fleshing machine.
- (ii) Hydraulic sammying machine.
- (iii) Combined hydraulic sammying setting machine.
- (iv) Hydraulic setting machine.
- (v) Ban knife splitting machine.
- (vi) Hydraulic shaving machine.
- (vii) Vibration type steaking machine (mollissa type).
- (viii) Lighting buffing machine.
- (ix) Air blast dust removing machine.
- (x) Curtain coating machine.
- (xi) Automatic padding, spraying and drying machine.
- (xii) Vacuum drying machine.
- (xiii) Seco-therm type drying units.
- (xiv) Hydraulic automatic plating ironing machine (Finiflex type).
- (xv) Hydraulic ironing and embossing press.
- (xvi) Roto press for leather printing.
- (xvii) Embossing plates and engraved rollers for leather.
- (xviii) Leather thickness measuring gauge.
- (xix) Portable PH meter for tanneries.
- (xx) Colori meter.
- (xxi) Hydraulic rolling machine.
- (xxii) Blades for leather machines.

Leather Goods and Footwear Machinery

- (i) Strap cutting machines.
- (ii) Strap folding machines.
- (iii) Skiving machines.
- (iv) Clicking machines.
- (v) Upper folding machines.
- (vi) Insold converting machines.
- (vii) Pulling over machines.
- (viii) Pulling over and cement lasting machines.
- (ix) Console lasting machines.
- (x) Staple sidelasting machines.
- (xi) Kamarian lasting machines.
- (xii) Outsole sticking machine.
- (xiii) Heel Seat lasting machines.
- (xiv) Automatic punching and cycletting machines.
- (xv) Bankknife splitting machines.
- (xvi) Hand vulcanising rubber presses DVP.
- (xvii) Foam rubber vulcanising process DVP.
- (xviii) PVC Shoe bottom/machines (four and six stations).
- (xix) String lasting machines.

3.1. Proposals for foreign collaboration for such items may be considered on merits.

PRINTING MACHINERY

Present Status

1.1. There are 11 units registered/approved for the manufacture of various types of printing machines with a capacity of Rs. 15.73 crores. Besides, letters of intent have been issued for a capacity of Rs. 6.30 crores. The majority of these units have yet to come to full production.

1.2. The production of printing machinery during the last three years was as under:

1973	Rs. 1.37 crores
1974	Rs. 1.68 crores
1975	Rs. 2.30 crores

Import of printing machinery during the past few years has been between rupees eight and ten crores per annum.

Future Scope

2.1. The draft Fifth Plan had laid down a capacity target of Rs. 16 crores and a production target of Rs. 11 crores to be achieved by 1978-79. The effective capacity so far created has been able to cover only a fringe of the requirements of the demand. It is expected that there would be substantial demand for the following items of printing machinery during the Fifth Plan period: platen presses, offset printing machines, gallery and precisions type proof cylinder; all types of composing machines

and casting machines and double and multi-colour off-set printing machines.

2.2. This is a capital intensive industry requiring a gestation period of 5 to 6 years to reach the rated production in quantity and quality. The manufacture of components and assembly operation for making printing machines involves a high degree of precision.

2.3. Foreign collaboration for the manufacture of printing machines can be considered on merits.

FLOUR MILL MACHINERY

Present Status

1.1. The total licensed/registered capacity for the manufacture of roller flour mill machinery is Rs. 60 lakhs. Letters of intent have been issued for a capacity of Rs. 5.83 crores. One of the firms is, likely to commence production shortly. The effective capacity likely to materialise may be of the order of Rs. 4 crores per annum.

1.2. During the last three years imports have been as under:

1972-73	Rs. 54.54 lakhs
1973-74	Rs. 37.47 lakhs
1974-75	Rs. 82.39 lakhs

Future Scope

2.1. The demand for industrial roller flour mill machinery inclusive of replacement requirements is likely to be met by the existing approved units. There is, no scope for setting up additional capacity in this industry.

RICE MILLING MACHINERY

Present Status

1.1. At present, there are three firms in the organised sector approved for a total capacity of 880 nos. of rice milling plants per annum. The capacity of these plants ranges from 1 to 4 tonnes per hour. All the three units are in production and manufacture modern rice milling plants, Rice mills, are also being exported to the neighbouring countries and there are good export possibilities for future.

Future Scope

2.1. No separate demand estimates have been made for the requirement of such plants. The existing units are expected to meet the demand. There is thus no scope for the creation of additional capacity in this field.

IRON ORE PELLETISATION PLANT

Present Status

1.1. There is only one unit manufacturing complete

pelletisation plants with a licensed capacity of 12,000 tonnes corresponding to a monetary value of Rs. 12 crores approximately.

Future Scope

2.1. No firm estimates of the demand for pelletisation plants have been worked out. There is possibility of a major shift in the demand for iron ore in the form of pellets and since there is only one manufacturer covering one type of design, other proposals to manufacture such equipments would be considered on merits.

GAS CUTTING AND WELDING EQUIPMENT

Present Status

1.1. There are two units licensed for a total capacity of 88,200 nos. per annum. The current level of annual production is 37,000 nos. valued at Rs. 200 lakh. Imports are only nominal and in 1974-75 amounted Rs. 1.05 lakh only. A beginning has been made in the export of these items. Export during 1974-75 was about Rs. 3 lakh.

Future Scope

2.1. No precise estimates regarding the requirements of this equipment have been made. There is scope for taking up the manufacture of sophisticated profile cutting machines. Well conceived proposals for the manufacture of gas cutting and welding equipment, automatic profile cutting machines could be considered on merits. Proposals for foreign collaboration can also be considered on merits.

BOILERS AND STEAM GENERATING EQUIPMENT INCLUDING AUXILIARIES AND ACCESSORIES

Present Status

1.1. At present, there are 10 units engaged in the manufacture of various types of boilers like thermal power station boilers; industrial boilers, package boilers, waste heat boilers, soda recovery boilers, etc.

1.2. Out of the above, 3 units are licensed to manufacture thermal power station boilers with an aggregate capacity of 3.9 MKW. Out of these, 2 units are in production.

1.3. 10 units are engaged in the manufacture of industrial boilers. In addition, industrial licences have been granted to 3 units for a capacity of 103 nos. of boilers and these schemes are under implementation. Another 3 units have also been registered. Besides, letters of intent have been granted to 2 units for a capacity of 28 nos. of boilers per year.

1.4. The past production of industrial and thermal power station boilers is indicated below:

1973-74	Rs. 82.51 crores
1974-75	Rs. 111.78 crores
1975-76	Rs. 140.00 crores

Future Scope

2.1. The draft Fifth Plan targets for capacity and production are 3.5 MKW and 2.5 MKW for thermal power station boilers. The capacity already created in the country covers the target. Accordingly there is no scope for creating additional capacity in this field.

Regarding industrial boilers, no specific target has been fixed. However, taking into consideration the capacity already established as well as that under implementation, there will be no scope for setting up new units for the manufacture of industrial boilers. Proposals for expansion and diversification of the existing units can be considered on merits.

WATER WELL DRILLING RIGS

Present Status

1.1. At present, there are 8 units borne on the list of DGTD for the manufacture of water well drilling equipment of various types and capacities. Besides, a few small scale units are also manufacturing these items. These units are in a position to manufacture direct rotary, reverse circulation, percussion, down the hole drilling rigs, etc. The total licensed capacity is 406 nos. per year. Letters of intent have been issued to cover a capacity of 150 nos. per year.

Production

1.2. The total production of the drilling equipment industry, which includes diamond core drilling rigs, coal drills, and accessories, besides water well drilling rigs, has been as under:

1973-74	Rs. 447 lakhs
1974-75	Rs. 683 lakhs
1975-76	Rs. 1000 lakhs

Future Scope

2.1. No specific target has been fixed for water well drilling rigs. However, the capacity already licenced and covered by the letters of intent will meet the demand of this item. Hence there is no scope for setting up new units but expansion and diversification of the existing units particularly for taking up the manufacture of high speed and deep well drilling rigs, may be considered on merits.

TEA MACHINERY

Present Status

1.1. At present there are 8 units licensed/registered

to manufacture tea processing machinery for a total capacity of Rs. 513 lakhs. As against this, the installed capacity is for Rs. 320 lakhs per annum. The country is not only self-sufficient in regard to requirement of various types of processing machinery for the industry, but these items are also being exported. On an average, the exports have been of the order of rupees twenty lakhs per annum.

1.2. The production for the last three years was as under:

1973	Rs. 190.5 lakhs
1974	Rs. 222.3 lakhs
1975	Rs. 270.0 lakhs

Future Scope

2.1. A considerable sophistication as well as production capability in tea processing machinery has been achieved in respect of items of conventional types. Having regard to the latest trend, particularly for export market there is a need to develop machines such as tea packeting machines for making instant tea. The existing units will be encouraged to diversify and take up such items.

SOAP AND SYNTHETIC DETERGENT PLANTS

Present Status

1.1. At present, there are 4 firms approved for a total capacity of Rs. 507 lakhs. Out of the these, three have recently commenced production. With the commencement of production, this industry is in a position to offer turn-key projects and complete machinery for the manufacture of soaps and synthetic detergent plants.

Future Scope

2.1. The specific demand for such plants has not been assessed. However, the current demand does not suggest the need for creation of further capacity at this stage.

RUBBER MACHINERY

Present Status

1.1. There are, at present, 18 units registered with a total capacity of Rs. 42.6 crores. Out of the above, 11 units are in production and the installed capacity is approx. Rs. 9.75 crores per annum. Although there is a substantial gap between the approved capacity and the installed capacity at present, all the units are geared to step up their capacity to meet the complete requirements of the country. Exports have also started in a smaller way. The items manufactured in the country cover practically all the machines required for a modern tyre manufacturing unit.

1.2. During the last 3 years, the production was as under:

1973	Rs. 1.04 crores
1974	Rs. 3.55 crores
1975	Rs. 7.32 crores

Future Scope

2.1. The proposed targets for the Fifth Plan are as under:

(a) Approved Capacity	Rs. 25 crores per annum
(b) Installed Capacity	Rs. 18 crores per annum

The targets mentioned above do not include the standard bought out components like gear boxes, motors, compressors, etc. Since sufficient capacity has already been approved for the various items of rubber machinery, creation of further capacity will not be encouraged. However, there is a necessity to strengthen the areas of manufacture of bought out items and sub-assemblies like special gear boxes, special motors, chilled cast iron rolls, etc. These can however, be taken up through diversification by units which are already engaged in the manufacture of similar items.

FOOD PROCESSING MACHINERY

Present Status

1.1. There are, at present, nine units registered/licensed for the manufacture of various items of food processing machinery. The approved capacity is Rs. 349 lakhs and the installed capacity is approximately Rs. 310 lakhs. The items manufactured cover exhausters, cookers, coolers, peelers, roasters, slicers, podders, filters, corers and sizers, blanchers, washers, winnovers, graders, brine making machines, goose neck elevators, dicers, apron dryers, pre-heaters, deareators, vacuum boiling pans for concentration of juice, juice pasteurisers, can sterilisers, conveyors, can dryers, lablers and packers, steam jacketed food pans and pulpers, fruit juice deareators, batch cooker plant, continuous rotary plastic machine, sweet wrapping machine, lozenges machines, etc.

1.2. By and large, a good portion of the lines of food processing machinery are available from indigenous sources in the form of individual items.

1.3. The production in 1974 and 1975 has been of the order of Rs. 138 lakhs and Rs. 110.82 lakhs respectively. The comparative low level of production is due to the lack of orders.

Future Scope

2.1. It is anticipated that in the near future a number of food processing projects would be coming up and the

production level of the industry will appreciably go up. At present, there is no scope for the establishment of new units.

ROCK DRILLING MACHINERY AND EQUIPMENT

Present Status

1.1. The present licensed capacity, additional capacity covered by letters of intent and production of the various types of rock drilling equipment is given below:

	<i>Licensed Capacity</i>		<i>Production</i>	
	<i>Capacity (nos.) covered by</i>		<i>1975 (nos.)</i>	
	<i>letters of</i>		<i>intent</i>	
1. Rock drills and pushers feedlegs.	12,444	—	5000	—
2. Wagon drills	—	150 nos.	—	—
3. Hammer drills-down the hole.	400	160 nos.	190	—
4. Blast hole drills-self propelled.	122	100 nos.	50	—
5. Other items such as drifters, stoppers, etc.	—	180 nos.	—	—

1.2. The demand for rock drills is fully met from indigenous sources. In addition, these are also being exported. 1070 rock drills valued at Rs.-15.66 lakhs were exported during 1974-75.

1.3. Hammer drills upto 150 mm size used in the mining and tubewell drilling are also being manufactured, higher sizes are being developed.

1.4. Self-propelled blast hole drills upto 150 mm size are being manufactured indigenously. These are used in various mines such as coal, iron ore, limestone, copper, rock phosphate, etc. Of late, there has been an increasing demand for bigger size of blast hole drills of 250 mm-300 mm Dia. These are in the developmental stage by the existing manufacturers.

Future Scope

2.1. Well prepared schemes for the manufacture of specialised types of equipments will be considered. Foreign collaboration may be considered on merits if the prospective manufacturers are able to start with a high indigenous content.

CRANES

(Excluding Mobile, Track and Crawler Mounted)

Present Status

1.1. The total licensed capacity for the industry is 47,770 tonnes per annum. Letters of intent have been issued for a capacity of 14,535 tonnes. Existing installed

capacity is 46,400 tonnes per annum. Production during the last 3 years was as under:

1973	12,000 tonnes
1974	14,656 tonnes
1975	14,864 tonnes

The bulk of the existing capacity is for low and medium duty cranes where the demand is limited.

1.2. The imports and exports of cranes during the last three years were as under:

	<i>Imports</i>	<i>Exports</i>
1972-73	Rs. 23 lakhs	Rs. 11 lakhs
1973-74	Rs. 121 lakhs	Rs. 31 lakhs
1974-75	Rs. 56 lakhs	Rs. 2 lakhs

1.3. The main raw materials required for this industry are mild steel plates, structural sections and electrical components to suit the characteristics of the cranes to be manufactured. Mild steel plates and structural sections are available indigenously. Some electrical components and bearings are imported.

Future Scope

2.1. The Task Force had assessed the demand for cranes at 28,000 tonnes per annum, including nearly 15,000 tonnes of heavy sophisticated cranes. It is estimated that the capacity already created together with the capacity which is likely to be available from approved schemes will be adequate to meet the expected demand by 1978-79. There is, therefore, no scope for licensing additional capacity for low and medium duty cranes. The manufacture of heavy duty cranes and sophisticated cranes like laddle cranes, soaking pit cranes, cranes for steel mills, container crane, large wharf cranes for ports, etc., could be taken up as a diversification programme by the existing structural fabricators.

2.2. Foreign collaboration can be considered on a selective basis on merits.

POWER-DRIVEN PUMPS

Present Status

1.1. Power-driven pumps are broadly classified as under:

(1) for irrigation; and (2) for industrial use. There is adequate capacity in the large-scale and the small scale sector for the manufacture of irrigation pumps. Centrifugal pumps upto 4' for agricultural purposes have been reserved for small scale sector.

1.2. There are, at present 53 units registered/licensed with an annual installed capacity of 5,00,000 nos. These also include a capacity of 14,000 nos. for process pumps.

1.3. The production achieved by the existing units in the large scale sector during the last three years was as under:

1973	335,416 nos.
1974	272,749 nos.
1975	290,000 nos.

1.4. Process pumps for certain special applications are being imported. The import figures of pumps for the last three years including process pumps are as under:-

1972-73	Rs. 197 lakhs
1973-74	Rs. 158 lakhs
1974-75 (upto Dec.)	Rs. 310 lakhs

1.5. Exports are mainly confined to pumps for irrigation purposes. The exports during 1974-75 (upto December) have been of the order of Rs. 166 lakhs.

Future Scope

2.1. Having regard to the capacity available in the large-scale sector and the small-scale sector, there is no scope for additional capacity for pumps for irrigation. Schemes have recently been approved for the manufacture of process pumps. Progress of implementation will be watched before considering additional capacity during the year.

2.2. One of the important components required for process Pumps is mechanical seals, which is being imported. A few firms have already been licensed for the manufacture of mechanical seals in the large-scale sector, and schemes are in various stages of implementation. At this stage, this item does not offer potential for new entrants.

AIR AND GAS COMPRESSORS

Present Status

1.1. At present, there are 13 units manufacturing air and gas compressors with an annual licensed capacity of about 13,600 nos. per annum. Out of these, two units are in the public sector manufacturing high capacity reciprocating and centrifugal compressors. The overall manufacturing range is from 1.5 cfm to 5000 cfm with pressures to 6500 psig. in the reciprocating type and 205,000 cfm in the centrifugal type. The production during the last three years was as under:

1973	5,978 nos.
1974	6,590 nos.
1975	6,000 nos.

1.2. The utilisation of capacity in this industry is low mainly due to competition from the small-scale sector for garage type compressors. The units in the large-

scale are at present diverting their production to take up the manufacture of high capacity compressors. Additional letters of intent have been issued to two units for expansion for an annual capacity of about 2800 nos.

Imports

1.3. Imports are restricted to certain special type of compressors required for process industries. However, with a public sector unit having gone into production of special types of compressors, it is expected that imports of compressors for process industries would also come down in due course.

Exports

1.4. Exports of compressors during 1974-75 were of the order of about Rs. 150 lakhs as compared to Rs. 68.25 lakhs during 1973-74.

Future Scope

2.1. The demand estimated by the Planning Commission for 1978-79 is of the order of 12,000 nos. To achieve this, a capacity of 16,000 nos. will have to be established. As the capacity already licensed and the capacity covered by letters of intent cover this, there is no room for new entrepreneurs in this field. However, the existing units may diversify their production taking into account the manufacturing programme of the public sector units.

ANTIFRICTION/BALL AND ROLLER BEARINGS

1.1. The growth of this industry is closely linked with the development of engineering industries. Ball bearing, roller bearings and tapered bearings are the main types of bearings.

Present Status

2.1. The capacity covered by licences/registration is 299.93 lakh nos. per annum and letters of intent have been issued for an additional capacity of 699.13 lakh nos. per annum.

2.2. The production during the last three years was as under:

1973	244.5 lakh nos.
1974	245.0 lakh nos.
1975	248.0 lakh nos.

2.3. Currently, ball and roller bearings are being imported to the tune of Rs. 12 to Rs. 14 crores per annum.

Future Scope

3.1. Fifth Plan envisages a capacity of 450 lakh nos.

and production of 430 lakh nos. per annum by the end of 1978-79. Having regard to the progress made in the implementation of letters of intent, it is estimated that a capacity of the order of 400 lakh nos. is likely to come into operation by the end of 1978-79. The additional capacity likely to materialise during the Sixth Plan period may cover special types of ball and roller bearings, which are being imported at present. There is, therefore, need to watch the progress of implementation of the schemes already approved before considering proposals for the creation of additional capacity.

3.2. Existing units may, however, apply for expansion/diversification for such types and sizes of ball and roller bearings, which are being imported at present.

GRINDING WHEELS (BONDED ABRASIVES)

Present Status

1.1. The total capacity covered by licences/registration is 12,585 tonnes per annum. Letters of intent have been issued for an additional capacity of 10,240 tonnes per annum. There are at present, seven units in production with an installed capacity of 8,548 tonnes per annum.

1.2. The production of grinding wheels during the last 3 years was as under:

1973	6478 nos.	Rs. 618 lakh
1974	6825 nos.	Rs. 752 lakh
1975	*6300 nos.	Rs. 845 lakh

*Some of the units have taken up higher value items.

1.3. Imports are restricted to special types of grinding wheels which are required by ball bearing industry and for the manufacture of razor blades, etc. Imports during 1974-75 were of the order of Rs. 26 lakh. Exports during 1973-74 and 1974-75 were of the order of Rs. 83.50 lakhs and Rs. 72.29 lakhs respectively.

Future Scope

2.1. The Task Force had assessed the demand for grinding wheels at 16,000 tonnes per annum by 1978-79. The capacity which is likely to materialise from the schemes under implementation will take care of the demand for general purpose grinding wheels. However, proposals for the expansion of existing units with comparatively lower capacity and for diversification for the manufacture of specialised types of grinding wheels, which are currently being imported, will be considered on merits.

2.2. Proposals for foreign collaboration will be considered on merits.

Future Scope

2.1. The Task Force had assessed the demand for grinding wheels at 16,000 tonnes per annum by 1978-79. The capacity which is likely to materialise from the schemes under implementation will take care of the demand for general purpose grinding wheels. However, proposals for the expansion of existing units with comparatively lower capacity and for diversification for the manufacture of specialised types of grinding wheels, which are currently being imported, will be considered on merits.

2.2. Proposals for foreign collaboration will be considered on merits.

COATED ABRASIVES

Present Status

1.1. There are 7 units engaged in the manufacture of

coated abrasives with an installed capacity of 534,000 reams per annum.

1.2. Production during the last 3 years was as under:

	(Reams)	(Rs. lakhs)
1973	214,000	380.25
1974	291,000	654.81
1975	195,000 + Specials	631.47

1.3. Imports are marginal and are restricted to special types of abrasive belts and coated discs. The level of annual exports is Rs. 21 lakhs.

Future Scope

2.1. The existing capacity is sufficient to meet the demand for general types of sheet goods, like emery paper, emery cloth, etc. Existing manufacturers could diversify for manufacture of special types of abrasive belts and coated discs. Proposals for export-oriented schemes will also be considered on merits.

MACHINE TOOLS

Present Status

1.1. Machine tools can be broadly grouped into two categories viz., (A) metal cutting and metal forming machines and (B) machines for working on plastics, glass and wood; portable electric and pneumatic tools; die-casting machines; wire working machinery; hydraulic and pneumatic elements; and machine tool accessories.

1.2. Machine tools are currently manufactured by 118 firms in public and private sectors with an installed capacity of Rs. 101 crores in Group (A) and Rs. 32 crores in Group (B). The total licensed capacity is Rs. 153 crores comprising Rs. 113 crores in Group (A) and Rs. 40 crores in Group (B). The additional capacity covered by letters of intent is Rs. 7 crores in Group (A) and Rs. 6.5 crores in Group (B). It is estimated that out of the additional licensed and letters of intent issued, the capacity likely to materialise will be Rs. 13 crores in each of the two groups.

1.3. The indigenous production in 1974-75 was Rs. 92.5 crores and Rs. 105 crores in 1975-76. The utilisation of the installed capacity works out to 79%. The indigenous production covers a very wide range of machine tools including special purpose machines of unit head construction and numerically controlled machines to a limited extent. A number of specialised and high accuracy machines are still being imported. The dependence on imports for meeting internal demand has been reducing considerably over the past years. While hardly 5/6 years back, the country was dependent for more than half of its requirements on imports. Currently the dependence has reduced to less than 25%. In quantitative terms, the current level of imports is estimated to be of the order of 2,000 nos. valued at about Rs. 28 crores comprising a large variety of specialised and high technology machines required in limited numbers. The indigenous manufacturers have also been exporting machine tools, mostly of the general purpose types and exports in 1973-74 were valued at Rs. 3.7 crores and Rs. 7.0 crores in 1974-75.

1.4. Besides the units in the organised sector, there are a large number of units manufacturing general purpose machines in the small scale sector.

Future Scope

2.1. The draft Fifth Plan has indicated the overall capacity and production targets to be achieved by 1978-79 at Rs. 160 crores and Rs. 137 crores respec-

tively. In terms of Group A and Group B machine tools, the break up is assessed as under:

	(Rs. crores)		
	Group A	Group B	Total
Capacity			
target 1978-79	117	43	160
Production			
target 1978-79	102	35	137

2.2. Ranges and specifications of machine tools, which are not yet manufactured indigenously are broadly indicated in the list at the end of this chapter. Entrepreneurs are advised also to refer to the Appendix 80 in the Import Trade Control Policy Book, Volume I, for guidance. Most of these machines are required in limited numbers. Again, many of them require a high level of technology and a high degree of accuracy. Import of such types may be unavoidable as it may not be technically and economically possible to undertake manufacture of all these machines. Even the most advanced countries in the world are not self-sufficient in all ranges of machine tools.

2.3. Even then a number of items, currently being imported, could be taken up for manufacture. Moreover, machine tools have to cater to a very large variety of requirements, and depending upon the end-use, there could be varying types and sizes within the same broad specifications. Manufacture of such machine tools could best be undertaken by the existing units through diversification. Government have extended special facilities for diversification in the field of machine tools by existing manufacturers of machine tools, industrial machinery and automobiles. Provision for automatic growth in capacity has also been announced. This does not, however, rule out the possibilities of new medium scale units coming up for manufacture of machine tools both in the existing ranges of products and for new items.

2.4. Within the broad list of items not yet covered by current production indicated in the list at the end of this Chapter and also in Appendix 80 of the Import Trade Control Policy Book (Volume I), certain items of machine tools which are currently being imported, involving considerable amount of foreign exchange expenditure are—high accuracy tool room lathes, versatile and accurate tool and die miller, high accuracy tool room cylindrical grinder, specialised internal grin-

ders required for roller bearing industry, specialised machinery required for manufacture of nuts and bolts, specialised gear cutting machines, etc. Well conceived schemes for the manufacture of these items may be considered on merits.

2.5. Scope also exists for setting up specialised machine tools components manufacturing facilities in major machine tool manufacturing centres. In the process of modernising their products, many of the medium and small scale units are increasingly requiring such specialised machine tools components and facilities like ground gears, precision ground spindles, ground spline shafts, precision lead screws, precision boring heat treatment, etc. which many units in the small and medium scale sector, are unable to instal. individually due to economic considerations.

2.6. For a new unit, precise norms of investment cannot be indicated as the manufacturing facilities required are mostly common, and there is scope for substantial sub-contracting. In general, for manufacturing a machine tool of modern design, a new unit may require an investment in capital equipment around the value of the turn-over. It will be necessary for a new unit to equip itself with the basic and critical production facilities.

2.7. The units in the small sector could also expand their capacities not only with a view to covering additional ranges of machine tools, but also for updating the products being manufactured by them.

2.8. With regard to category (B), the future scope for some of the major items is indicated below:

- (i) *Pneumatic Hydraulic Elements*: The existing installed capacity and production during 1975-76 was at Rs. 5.3 crores and Rs. 4.25 crores respectively. Additional capacity to the extent of Rs. 13.5 crores is likely to materialise. With the generation of this capacity, the demand as estimated by the Task Force by the end of Fifth Plan, is likely to be fulfilled. As such, creation of additional capacity at this stage is not envisaged. However, the existing manufacturers and the units which are likely to commence production shortly could diversify into additional ranges of hydraulic and pneumatic elements, which are not yet covered in their production programme.
- (ii) *Machine Tool Accessories*: Under this category, there are numerous items which are vitally required in proper utilisation of basic machine tools. The production of such items during 1974-75 and 1975-76 was Rs. 3.61 crores and Rs. 8.25 crores respectively. Though specific import statistics are not available, it is felt that accessories valued at about Rs. 5 crores are being imported annually. The creation of additional

capacity in this field by existing manufacturers and also by new units will be encouraged.

- (iii) *Portable Tools*: Production during 1974-75 and 1975-76 was Rs. 4.65 crores and Rs. 5.10 crores respectively. Imports are very nominal. However, these tools have good export potential. Export during 1974-75 was worth about Rs. 40 lakhs. Export-oriented schemes could be considered on merits.
- (iv) *Plastic Processing Machinery*: Injection moulding machines, extruders and low moulding machines are some of the important items. In view of the current low demand and the capacity already created in this field, there is no scope for further licensing in these ranges of machines for the present.
- (v) *Wire Working Machinery*: Sufficient capacity has already been created in the field of wire drawing machines, stranding machines, etc. and there is no further scope for licensing for the present. However, specialised machines required for manufacture of coil and other shaped springs are not manufactured in the country. The annual demand for such machines is estimated to be of the order of Rs. 50 lakhs and manufacture of such machines will be encouraged.
- (vi) *Glass Bottle Making Machinery*: As sufficient capacity has already been created vis-a-vis the likely demand, there is no scope for further licensing in this field for the present.

Exports

3.1. Past export surveys and assessment by the Task Force project a good export potential for machine tools. The likely demand for Indian machine tools in the export market is in two extreme ranges. There is a substantial demand for general purpose machines, like lathes, radial drills, bench and pillar drills, milling machines, shaping machines, hack-sawing machines, etc. The export potential of this class of machine tools by 1978-79 is estimated at 5000-6000 nos. per annum. On the other hand, there is a growing requirement for sophisticated machine tools with programme controls. However, it would be necessary for the indigenous manufacturers to take into consideration the current technological trends and the requirements of the specific markets. Export markets are highly competitive, and quality, delivery schedules and competitive prices are important factors. Apart from export of complete machine tools, possibilities exist in the areas of export of know-how, services, etc.

Technology

4.1. In the course of its development during the last

two decades, the Indian machine tool industry has gradually developed its own design competence to a certain extent and many manufacturing units have set up their own research and development facilities. Government has also established a Central Machine Tool Institute at Bangalore with a view to catering to the requirements of machine tool industry for conducting research, development of designs, etc. The Institute on its own, has developed designs for a number of machine tools and most of these have been licensed for production. A number of items are currently under development. Even so, there are quite a few items of sophisticated nature where import of technology may have to be resorted to for some time to come. Proposals for foreign collaboration would, therefore, be considered on merits having regard to the facilities available in the country.

Entrepreneurs are advised to initially approach the Central Machine Tool Institute before approaching the Government with foreign collaboration proposals.

4.2. Existing units, both in the medium and large scale will be encouraged to take up programmes for updating their product range. Facilities available at the Central Machine Tool Institute in this regard can be availed of. Wherever appropriate, Government would extend facilities like import of prototypes, etc. with a view to making existing products conform to changing requirements.

Broad List of Machine Tools which are not in the Indigenous Manufacturing Programme at present

I. Turning Machines

1. High accuracy tool room lathes
2. Relieving lathe
3. Spinning and flow turning lathes
4. Crankshaft lathes
5. Camshaft and profile turning lathes

II. Drilling Machines

1. Turret type drilling machines
2. Deephole drilling machines

III. Milling Machines

1. Plano-milling machines
2. Flute milling machines
3. Spline milling/hobbing machines
4. Keyway/slot milling machines
5. Copying/duplicating and profile milling machines
6. Die sinking machines
7. Longitudinal and circular dividing machines
8. High accuracy tool die milling machines

IV. Grinding Machines

1. High precision tool room cylindrical grinder suitable for grinding of gauges

2. Surface grinder, rotary table type horizontal spindle
3. Slideway grinder
4. Shear and knife grinder
5. Face and side mill cutter grinder
6. Hob grinder
7. Gear shaper cutter grinder
8. Thread chaser grinder
9. Tap grinder
10. Optical profile grinder
11. Camshaft grinding machines
12. Jig grinders
13. Specialised internal and external grinders required for the rolling bearing industry.

V. Boring Machines

1. Jig borers

VI. Threading Machines

1. Thread milling machines
2. Thread grinding machines
3. Thread whirling machines/attachments

VII. Shaping and Slotting Machines

1. Traversing head type shaping machines
2. Hydraulic shaping machines
3. Die and punch shaping machines
4. Key seating machines

VIII. Gear Cutting Generating Finishing and Testing Machines

1. Spiral and bevel gear generators
2. Gear lapping machines
3. Gear shaping machines
4. Gear rolling machines
5. Worm milling machines
6. Gear grinding machines
7. Gear tooth rounding and chamfering machines
8. Gear tooth deburring machines
9. Rack shaping and rack milling machines
10. Worm grinders
11. Gear testing machines—all types
12. Gear quenching presses

IX. Lapping, Honing and Polishing Machines

1. Lapping machines—all types
2. Honing machines—all types
3. Superfinishing machines and attachments
4. Polishing machines—unit head type

X. Wire Working Machines

1. Wire straightening and cutting off machines
2. Spring coiling machines
3. Wire weaving machines
4. Wire braiding machines

XI. Hammers and Forging Machines

1. Double acting counterblow hammers
2. Die forging hammers other than conventional

electro-pneumatic types

3. Rotary swaging machines
4. Forging rolls
5. Heading and upsetting machines both cold and hot

XII. Presses and Sheet Metal Working Machinery

1. Rotary flanging presses

XIII. Others

1. Leaf spring manufacturing machines
2. Chain making machines
3. Machines for the manufacture of needles and pins.
4. Machines for the manufacture of

zip fasteners

5. Impact extrusion press for manufacture of collapsible tube
6. Specialised machinery required for manufacture of nuts and bolts e.g. cold header, nut tapper trimmer, reciprocating die type threading and pointing machines etc.

XIV. Wood Working Machinery

1. Pattern miller
2. Specialised machines for plywood industry
3. (a) Guilotine
(b) Peeling machines
(c) Automatic sanders

AGRICULTURAL MACHINERY

AGRICULTURAL TRACTORS

Present Status

1.1. There are, at present, 15 units for the manufacture of agricultural tractors in the range of 25 to 75 HP with a total capacity of 129,000 nos. Out of these, 11 units are in production with annual licensed capacity and installed capacity of 102,000 nos. and 50,000 nos. respectively. Additional letters of intent have been issued to two units for a total capacity of 20,000 nos. It is estimated that capacity likely to materialise by 1978-79 would be of the order of 80,000 nos.

1.2. The production during the last three years has been as under:

1973-74	24,200 nos.
1974-75	31,001 nos.
1975-76	34,000 nos.

Imports

1.3. Although from capacity and demand point of view, the indigenous industry is in a position to meet the demand, imports of some tractors do take place under the World Bank assistance scheme on global tender basis. The established agricultural tractor manufacturers have attained fairly a high degree of indigenous content.

Exports

1.4. The tractor industry has made a beginning in the export market and exports during 1974-75 were of the order of Rs. 1.4 crores.

Future Scope

2.1. According to the earlier estimates, the demand for agricultural tractors by 1978-79 was expected to reach a level of 80,000 nos. per annum. However, a recent study made by the Development Council for Automobiles and Allied Industries has revealed that the demand projection made earlier was rather over opti-

mistic. In any case, the industry is in a position to meet the anticipated demand by 1978-79 and there is no scope for new units.

POWER TILLERS

Present Status.

1.1. There are, at present, four units manufacturing power tillers with an annual installed capacity of 16,000 nos. per annum. The total licensed capacity as on date is 36,000 nos. In addition, letters of intent have been issued for a capacity of 9,000 nos. Although capacity has been established for 16,000 nos. per annum, the production has been far below the installed capacity due to poor off-take. The production has been as follows:

1973-74	969 nos.
1974-75	2,019 nos.
1975-76	3,000 nos.

1.2. Power tiller is comparatively a new product in this country and considerable marketing efforts are required on the part of the manufacturers to popularise its application in preference to conventional methods. As can be seen from the production figures given above, there has been encouraging trend in the demand of late.

Future Scope

2.1. Production and capacity targets by 1978-79 as estimated by the Planning Commission are of the order of 20,000 nos. and 36,000 nos. respectively. However, the earlier estimates appear to be rather over-optimistic.

2.2. One of the main items imported by the power tiller manufacturers is fine blades. Each power tiller requires about twenty fine blades as original equipment apart from replacements. The manufacture of fine blades may be explored by the existing units in the field of agricultural implements and the forging industry.

EARTH MOVING MACHINERY

SHOVELS/EXCAVATORS

Present Status

1.1. There are at present three units manufacturing shovels/excavators and adaptions thereof like dragline and clamshell. The range of manufacture covers $\frac{3}{4}$ cu. yd. to 6 cu. yds. One more unit licensed for manufacture of hydraulic excavators/loaders with a capacity of 100 nos. per annum has gone into production.

1.2. As the indigenous range of production covers most of the requirements, imports are restricted to large capacity excavators.

In regard to the components, the indigenous manufacturers have reached a high degree of indigenous content (80 to 90%). In so far as the raw materials are concerned, the major items of import are steel plates and alloy steels.

1.3. The production during the last three years was as under:

1973-74	104 nos.
1974-75	124 nos.
1975-76	120 nos.

Future Scope

2.1. According to the Task Force on Construction Equipment, the total demand during the Fifth Plan period for excavators is 800 nos. On this basis, the demand by 1978-79 may be 200 nos. As the indigenous capacity is about 230 nos., this field does not offer scope for new units.

CRAWLER TRACTORS

Present Status

1.1. At present, there are three units manufacturing crawler tractors—two of them in the public sector. The installed capacity is about 700 nos. per annum. Another licensed unit for crawler tractors is expected to go into production by the end of this year. The total licensed capacity for crawler tractors is 1940 nos. per annum.

1.2. The production during the last three years was as under:

1973-74	278 nos.
1974-75	319 nos.
1975-76	300 nos.

The present production is in the range of 50 HP to 275 HP. This range meets most of the requirements. Imports of crawler tractors of 400 HP are being allowed. Such imports do not exceed 50 nos. per annum.

1.3. With regard to the import of components, a fair measure of indigenisation has been achieved amounting in some cases to more than 80%. The imported raw materials are essentially steel plates and alloy steels.

Future Scope

2.1. According to the Report of the Task Force on Construction Equipment, the total demand during the Fifth Five Year Plan period for crawler tractors is 1600 nos. corresponding to a demand of 400 nos. by 1978-79. This, however, does not take into consideration the requirement of agricultural type of crawler tractors, the requirement of which is placed at 1000 nos. by the end of the Fifth Plan. With two more units going into production and the programme of the existing manufacturers to go in for higher ranges, the approved capacity is adequate to meet the foreseeable demand and there is no scope for new units in this field.

DUMPERS

Present Status

1.1. There are, at present, 3 units manufacturing dumpers, one of the units being in the public sector. The installed capacity for dumpers is 638 nos. The production during the last three years was as under:-

1973-74	201 nos.
1974-75	317 nos.
1975-76	300 nos.

The indigenous range, which covers machines from 15 to 50 tonnes, caters to most of the requirements. As in the case of other items of construction equipment, the indigenous content in terms of components is of the order of 80%.

Future Scope

2.1. According to the Task Force, the total requirements of dumpers during the Fifth Plan would be of the order of 1800 nos. The corresponding annual requirement by 1978-79 has been estimated to be of the order of 490 nos. The existing capacity is more than adequate to meet this requirement and there is at present no scope for new units in this field.

MOTORISED SCRAPERS

Present Status

1.1. There is only one public sector unit in production manufacturing motorised scrapers of 14 to 20 cu. yds. capacity. The installed capacity is 150 nos. per annum. In addition one more unit has been approved for the manufacture of motorised scrapers for an annual capacity of 50 nos. of 7-12 cu. yds. capacity.

1.2. The production during the last three years was as under:

1973-74	14 nos.
1974-75	17 nos.
1975-76	10 nos.

The low production is mainly attributed to the low off-take.

1.3. The indigenous content in terms of components is about 80%. The imports of raw materials, essentially consist of steel plates and alloy steels.

Future Scope

2.1. According to the Task Force, the demand for motorised scrapers during the entire Fifth Plan period is 500 nos. The corresponding annual demand by 1978-79 is estimated at 100 nos. The trend of production during the last few years would indicate that the demand estimates forecast earlier are rather over optimistic. In any case, the capacity approved is adequate to meet this demand and there is no scope for creating additional capacity in this field.

LOADERS

Present Status

1.1. There are two units manufacturing loaders, of which one is in the public sector. There are two types of loaders being manufactured—one is the wheeled type and the other crawler type. The unit in the public sector is manufacturing wheeled as well as crawler type loaders and the unit in the private sector is manufacturing wheeled type loaders only. The production during the last three years was as under:

1973-74	66 nos.
1974-75	80 nos.
1975-76	75 nos.

1.2. The indigenous range of wheel loaders is upto 2 cu. yds. Larger capacity wheel loaders of 3 cu. yds. capacity and above are also required, particularly, to meet the loading requirement of large size dumpers. At present, these are met through imports. The public

sector unit has developed a wheel loader of $4\frac{1}{2}$ cu. yds. capacity with indigenous know-how which is undergoing trial tests. Regular production of these wheel loaders is expected by the end of 1976.

1.3. One unit licensed for manufacture of rocker shovels has also gone into production.

1.4. Some components and raw materials required for loaders are being imported. In regard to components, the indigenous content achieved by the manufacturers is about 75%. Imported raw materials are mainly steel plates and alloy steels.

Future Scope

2.1. The Task Force had estimated the total requirement of loaders during the Fifth Plan period at 600 nos. This includes the requirements of wheeled and crawler types. The corresponding annual requirement is estimated at about 150 nos. for 1978-79, including the large size loaders of over 3 cu. yds. The capacity already approved is adequate to meet the envisaged demand and there is no scope for new units in this field.

MOTOR GRADERS

Present Status

1.1. Motor graders are manufactured by only one unit in the public sector. This unit has been licensed for 60 nos. per annum. and the capacity has been fully installed. The production during the last three years was as under:-

1973-74	20 nos.
1974-75	25 nos.
1975-76	15 nos.

The indigenous production covers motor graders of 115 HP and the entire requirements are met from indigenous production.

Future Scope

2.1. The total requirement of motor graders during the Fifth Five Year Plan period has been estimated at 300 nos. by the Task Force. On this basis, the annual requirements would be 70 to 75 nos. by 1978-79. As in the case of motorised scrapers, the earlier forecasts seem to be over optimistic. The existing unit will be able to meet these requirements and there is no scope for new units in this field.

ROAD ROLLERS

Present Status

1.1. There are six units in production with a total installed capacity of 1500 nos. Additional capacity

covered by industrial licences, letters of intent and registration is about 3500 nos. The production during the last three years was as under:

1973-74	1574 nos.
1974-75	1347 nos.
1975-76	600 nos.

Future Scope

2.1. There has been a sharp decline in the off-take for road rollers since 1975. The drop in production is due to cut-back in investment in road building activities. The capacity already established is more than adequate to meet the demand.

MISCELLANEOUS MECHANICAL AND EQUIPMENT INDUSTRIES

HAND TOOLS AND SMALL TOOLS

Hand tools and small tools are extensively used in all industries, repair shops and garages. Some of the important items coming under this category are forged hand tools, engineers' steel files and rasps, cutting tools made of tool steels and tungsten carbide, diamond drilling bits and diamond tools, rock roller bits, precision measuring instruments, jigs, and fixtures and press tools.

FORGED HAND TOOLS

Present Status

1.1. Forged hand tools cover items like spanners, wrenches, pliers, screw drivers, etc. There are at present 10 units in the organised sector manufacturing forged hand tools with an installed capacity of 11,770 tonnes. The total capacity licensed and registered with DGTD is 35,820 tonnes. An additional capacity of 46,000 tonnes is covered by letters of intent.

1.2. The production in the organised sector during the last 3 years was as under:

	(Rs. lakhs)
1973	894.33
1974	1287.00
1975	1775.00

In addition, a number of small scale units are producing a variety of forged hand tools.

1.3. This is an export-oriented industry and exports were of the order of Rs. 4.90 crores and Rs. 8.40 crores during 1973-74 and 1974-75 respectively. Imports are restricted to some specialised items only and are estimated to be of the order of Rs. 20 lakhs per annum.

Future Scope

2.1. The Task Force had projected a demand estimate of 20,000 tonnes per annum by the end of 1978-79 with the expectation that at least 10,000 tonnes will be exported.

2.2. The bulk of the plant and equipment is available from indigenous sources except for tool room machines. The main raw material is carbon steel, which is indigenous. Imports are restricted to special types of

alloy steels such as chromnevanadium steel, etc.

2.3. A large capacity has already been approved in this field. It is expected that with the implementation of some of the approved schemes, sufficient capacity will be created to achieve the targets laid down for the Fifth Plan. There is no scope for further licensing in this field at present. Progress of the schemes already approved will be watched.

ENGINEERS' STEEL FILES AND RASPS

Present Status

1.1. There are 6 units in the organised sector manufacturing steel files and rasps. The total installed capacity is 18 lakh dozens per annum, and a letter of intent for substantial expansion has been issued for an additional capacity of 6.79 lakh dozens per annum.

1.2. The production during the last three years was as under:

1973	12.96 lakh dozens
1974	13.24 lakh dozens
1975	12.14 lakh dozens

1.3. Imports are restricted to only special types of files such as needle and jewellers' files. The value of imports during 1974-75 was Rs. 2.27 lakh. It is primarily an export-oriented industry and exports achieved during 1973-74 and 1974-75 were of the order of Rs. 113 lakhs and Rs. 211 lakhs respectively.

Future Scope

2.1. The Task Force had recommended a capacity of 30 lakh dozens per annum by the end of 1978-79 with the expectation that at least 50% of the production will be exported. There is, therefore, scope to create additional capacity in this industry provided exports are envisaged. New proposals for diversification in the specialised types will also be considered on merits.

CUTTING TOOLS

Present Status

1.1. Cutting tools made of high speed steel and carbon tool steel cover a wide range of items like twist

drills, milling cutters, reamers, threading tools, broaches, industrial knives, saws of various types, etc. There are 68 units manufacturing these items. The current annual level of production is of the order of Rs. 23 crores. The details regarding capacity covered by licences/registration/letters of intent and production of individual items are given below:

Items	Accounting unit	Production in 1975	Capacity covered by licences/ regn. letters of intent
Broaches	Nos.	5696	18,000
Gear Cutting Tools	Nos.	8687	93,000
Milling Cutters	Nos. (000)	350	876
Reamers	Nos. (000)	200	412
Threading Tools	Nos. (Lakh)	45	81
Twist Drills	Nos. (Lakh)	130	175
Tool Bits HSS	Nos. (000)	1087	3,492
Metal Working			
Band Saws.	RM (000)	1236	4,000
Hacksaw Blades	Nos. (Lakh)	250	755
Industrial Knives	Nos. (Lakh)	200	880
Metal Slitting Saws	Nos. (000)	60	490

Bulk of the additional capacity approved is yet to be installed.

1.2. Most of the standard types of cutting tools are at present being manufactured in the country and imports are restricted to special types. Imports during 1974-75 were as under:

	(Rs. lakhs)
Chasers	2.07
Threading Dies	32.69
Milling Cutters	34.45
Hacksaw Blades	3.40
Reamers	4.33
Taps	1.07

1.3. The major raw material used in the manufacture of cutting tools is high speed steel in various sections and grades. The bulk of the requirements of high speed steel is at present met by imports.

Exports

2.1. The export prospects for cutting tools are good. Export figures for some of the items are as follows:

	(Rs. in lakhs)	
	1973-74	1974-75
Twist Drills	74.36	98.65
Threading Tools	19.63	25.38
Hacksaw Blades	10.65	20.35

A beginning has also been made in the export of broaches and industrial knives.

Future Scope

3.1. Cutting tools are consumable items required in production shops. As such, the demand for such tools is dependent on the increased industrial activity. Taking into consideration the demand assessment made by the Task Force appointed by the Planning Commission and the capacity already covered by licences/registration/letters of intent, there is scope for creation of additional capacity in threading tools, reamers, twist drills, slitting saws, etc. Items currently, in short supply are die heads, threading dies, chasers, butt welded tools, segmental saws, floating reamers, circular hot saws etc. In the field of gear cutting tools, the current production programme is confined to standard hobs and shaping cutters only. There is scope for diversification in the manufacture of gear shaving cutters, gleason type blades and special gear cutting tools for varied applications such as splines, sprocket, serration, etc. as also gear cutting tools for special profiles. The creation of additional capacity could best be done by expansion and diversification of the existing units. Export-oriented schemes will also be considered on merits.

4.1. Most of the standard types of cutting tools are already being manufactured based on indigenous technology. As such, no foreign collaboration is considered necessary in such categories of cutting tools. However, for specialised gear cutting tools and other varieties of specialised tools, foreign technical collaboration may be considered on merits.

HARD METAL PRODUCTS (Tungsten Carbide Tips and Tipped Tools)

Present Status

1.1. The present licensed and installed capacity for tungsten carbide tips is 400 tonnes and 240 tonnes respectively. Three firms have established facilities for processing from the ore stage, while two more have sintering facilities only. The additional capacity covered by letters of intent is 385 tonnes all from the ore stage.

1.2. For tipped tools, the present licensed and installed capacity is 13.20 lakhs nos. Additional capacity covered by letters of intent is 15.65 lakh nos.

1.3. The production during the last 3 years was as under:

Year	Carbide tips (tonnes)	Carbide tipped tools (Thousand nos.)
1973	138	1074
1974	156	968
1975	174	1300

1.4. The major raw material required is tungsten ore, which is imported.

Export

2.1. Exports of these items have risen from Rs. 42.40 lakhs in 1973-74 to Rs. 74.74 lakhs in 1974-75. There is good export potential for these items and export-oriented schemes will be encouraged for export of tips and tipped tools.

Future Scope

2.1. The Task Force has assessed the demand for tungsten carbide tips by 1978-79 at 350 tonnes per annum and for tungsten carbide (tipped tools) as 30 lakh nos.). In view of the capacity already covered by way of licences and letters of intent, there is no scope for creation of further capacity in tungsten carbide tips during 1976-77. However, export-oriented schemes will be encouraged. In the field of carbide tipped tools, there is scope for creation of additional capacity, which could be developed in the medium scale sector.

3.1. Foreign collaboration can be considered on merits for the manufacture of specialised tipped tools and also export-oriented schemes for tungsten carbide tips.

DIAMOND DRILLING BITS AND DIAMOND TOOLS

Present Status

1.1. There are 7 units manufacturing diamond tools and bits. The existing licensed capacity for diamond bits is 65,000 nos. per annum and for tools 175,000 nos. per annum.

1.2. The production during the last three years was as follows:

Year	Diamond Tools		Diamond Bits	
	Qty. no.	Value Rs. lakhs	Qty nos.	Value Rs. lakhs
1973	46,600	105	28,704	223
1974	62,189	131	32,540	269
1975	64,000	150	33,027	326

1.3. The main raw material is industrial diamonds, both natural and synthetic, which are imported.

Export

2.1. The export of diamond drill bits and tools have been showing an increasing trend, as will be seen from the following figures:

1972-73	Rs. 42.60 lakhs
1973-74	Rs. 55.25 lakhs
1974-75	Rs. 70.36 lakhs

Future Scope

3.1. The Task Force had estimated the demand by 1978-79 as under:

<i>Diamond drill bits</i>	<i>Diamond tools</i>
60,000 nos.	97,500 nos.

3.2. This demand can be met by the existing manufacturers through expansion and diversification. There are several units in the small scale sector also specialising in some of the products. Export-oriented schemes can, however, be considered on merits.

ROCK ROLLER BITS

Present Status

1.1. Tricone rock roller bits are used in oil and tubewell (water) drilling. It is an extremely critical item and has to meet exacting technical standards for drilling in difficult geological formations. One unit has commenced production with a licensed capacity of 3,000 nos. per annum. Letters of intent have been issued to 3 more parties for a capacity of 9,000 nos. per annum. Specific import statistics are not available. Estimated demand by 1978-79 is 12,000 nos. per annum.

Future Scope

2.1. In view of the growing demand, well prepared schemes for the manufacture of rock roller bits involving minimum import of components right from the beginning will be considered on merits. Foreign collaboration may also be considered.

PRECISION MEASURING INSTRUMENTS

Present Status

1.1. This category includes items like workshop gauges, micrometers, vernier calipers, dial gauges, measuring tapes, air gauges, etc. There are at present 10 units in production in the organised sector manufacturing various items. The present level of production is about Rs. 3 crores per annum covering standard items like micro-meters, vernier calipers, plug and ring gauges, steel tapes and rules, dial gauges, air gauges, etc. The estimated value of licensed capacity is Rs. 5 crores per annum. Besides, letters of intent have been issued for an additional capacity of Rs. 8 crores per annum covering a wide range of items.

1.2. The production and imports during the last three years were as under:

Year	Production	(Rs. lakhs) Imports
1972-73	142.83	129
1973-74	177.31	186
1974-75	230.00	170

The main raw materials are special types of alloy steel, which are partly imported at present.

Future Scope

2.1. The Task Force had estimated the demand for all types of precision measuring tools at Rs. 12 crores per annum by 1978-79. A large capacity has already been approved. The progress of the schemes approved will be watched. As precision measuring instruments include a very wide variety of items, there is scope for additional capacity for specialised items, through diversification as well as through creation of new units. Foreign collaboration may be considered on merits.

JIGS, FIXTURES, PRESS TOOLS, MOULDS, DIES, ETC.

Present Status

1.1. At present, there are 17 units in production. A capacity of Rs. 12.75 crores has been covered by industrial licences and letters of intent have been issued for an additional capacity of Rs. 1.90 crores. Besides, considerable capacity is available for these items in the various tool rooms of existing engineering units. The production of jigs, fixtures, etc. by contract tool room during the last three years was as under:

1973	Rs. 241.35 lakhs
1974	Rs. 405.00 lakhs
1975	Rs. 430.00 lakhs

1.2. Precise import statistics of jigs, fixtures and press tools are not available. In some of the cases, the initial requirements of jigs, fixtures and press tools for new projects are met through imports along with capital equipment.

Future Scope

2.1. The Task Force had projected a demand estimate of Rs. 12.5 crores per annum by the end of 1978-79. Jigs, fixtures and press tools are tailor-made items and offer scope for setting up specialised units for manufacture of such items. Proposals for foreign technical collaboration for the manufacture of specialised products may be considered on merits.

HIGH TENSILE BOLTS AND NUTS

Present Status

1.1. The capacity registered and licensed is of the order of 43,196 tonnes per annum and the installed capacity is 18,746 tonnes. Letters of intent have been issued for an annual capacity of 139,650 tonnes. The effective annual capacity likely to materialise by 1978-79 would be of the order of 39,596 tonnes.

1.2. The production during the last three years was as under:

1973	8,084 tonnes
1974	9,278 tonnes
1975	8,475 tonnes

1.2. The imports and exports of this item during the last three years were as under:

Years	Imports	(Rs. in lakhs) Exports
1972-73	58.56	68.35
1973-74	55.95	142.69
1974-75	78.84	467.39

Future Scope

2.1. Having regard to the capacity already approved through industrial licences/registration and letters of intent, there is no further scope for licensing of new units for manufacture of high tensile bolts and nuts.

INDUSTRIAL CHAINS

Present Status

1.1. The annual capacity licensed/registered is of the order of 32.10 lakh meters and the installed capacity is 28.20 lakh meters. Further letters of intent for an additional capacity of 32 lakh meters have been issued. The total capacity likely to materialise by 1978-79 is approximately 57 lakh meters.

1.2. The production, imports and exports during the last three years were as under:

Year	(in lakh meters) Production	Year	(Rs. in lakhs) Imports Exports	
1973	9.45	1972-73	22.56	23.13
1974	12.36	1973-74	14.99	25.63
1975	11.52	1974-75	9.99	53.39

Future Scope

2.1. No precise demand estimates of industrial chains have been made. It is anticipated that the total capacity so far approved is fairly large. Further, the capacity utilisation of the existing units is low. In view of this position, there is no scope for creating additional capacity in this field during 1976-77. Proposals from the existing units for diversification to cover demand for special types of chains may be considered on merits.

GRINDING MEDIA STEEL BALLS (Forged and Cast)

Present Status

1.1. The annual capacity registered and licensed is of

the order of 62505 tonnes and the installed capacity is 40800 tonnes. The entire capacity is likely to materialise by 1978-79. The production, imports and exports in the last three years were as under:

<i>(tonnes)</i>		<i>(Rs. in lakhs)</i>		
<i>Year</i>	<i>Production</i>	<i>Year</i>	<i>Imports</i>	<i>Exports</i>
1973	13,085	1972-73	2.90	0.87
1974	17,315	1973-74	3.93	0.42
1975	17,900	1974-75	0.11	1.00

Future Scope

2.1. The estimated annual demand by 1978-79 is 36,500 tonnes. As sufficient capacity has already been licensed to meet the estimated demand, there is no scope for creating any further capacity.

COMMERCIAL OFFICE AND HOUSEHOLD EQUIPMENT

TYPEWRITERS

Present Status

1.1. There are 4 units in production with total installed capacity of 86,400 nos. per annum. The capacity covered by industrial licences is 121,400 nos. per annum. Letters of intent have been issued for an additional capacity of 22,000 nos. per annum.

1.2. Production during the last 3 years was as under:

1973	32,118 nos.
1974	46,970 nos.
1975	49,600 nos.

1.3. Imports of electric typewriters have been permitted on restrictive basis and imports during the years 1972-73, 1973-74 and 1974-75 (upto January) were valued at Rs. 23 lakhs, Rs. 28 lakhs and Rs. 9.63 lakhs respectively. Exports during the last 3 years were valued at Rs. 15.46 lakhs, Rs. 7.84 lakhs and Rs. 14.94 lakhs respectively.

Future Scope

2.1. The draft Fifth Plan has laid down a production target of 81,000 typewriters per annum by 1978-79. Having regard to the licensed/installed capacity, there is no scope for the creation of additional capacity, in this field. Diversification from existing manufacturers for the production of portable typewriters and Indian language typewriters can, however, be considered on merits.

The raw materials required for the industry are cold rolled steel strips of low, medium and high carbon, free cutting steel bars and strips, spring steel wire and CRCA sheets. These are available partly from indigenous and partly from imported sources. Special section profiles and nickel also required by the industry are wholly imported.

ELECTRO MECHANICAL CALCULATORS

Present Status

1.1. There is only one unit in production in the organised sector with an installed capacity of 12,500 nos. per annum. Letters of intent have been issued for an additional capacity of 59,600 nos. per annum.

1.2. The production in the last three years was as under:

1972-73	11,336 nos.
1973-74	10,763 nos.
1974-75	11,509 nos.

1.3. Imports are taking place mostly for electrically operated calculating machines. Imports during the year 1972-73, 1973-74 and 1974-75 were valued at Rs. 72.81 lakhs, Rs. 210 lakhs and Rs. 38.63 lakhs respectively. Export of electro-mechanical machines during the last 3 years were valued at Rs. 5.08 lakhs, Rs. 8.93 lakhs and Rs. 11.67 lakhs respectively.

Future Scope

2.1. The present trend in demand is for electric/electronic calculating machines. The progress made by the approved units will be watched before recommending proposals for additional capacity in this industry.

SEWING MACHINES

Present Status

1.1. Total licensed/registered capacity in sewing machines industry is 655,000 nos. and the installed capacity is 533,500 nos. per annum. There are 5 units in production. In addition, letters of intent have been issued for a total capacity of 1 lakh nos. per annum.

1.2. Production during the last three years was as under:

1973	2.58 lakh nos.
1974	3.33 lakh nos.
1975	2.66 lakh nos.

Domestic sewing machines are also produced in substantial quantity in the small scale sector.

1.3. Imports have been confined to industrial types only. The import figures during 1972-73, 1973-74 and 1974-75 were valued at Rs. 61 lakhs, Rs. 79 lakhs and Rs. 83 lakhs respectively.

Exports during these years were valued at Rs. 51 lakhs, Rs. 50 lakhs and Rs. 31 lakhs respectively.

Future Scope

2.1. It is estimated that the capacity and production requirements by 1978-79 would be 730,000 and 670,000 nos. per annum respectively to take care of the domestic and export needs. The major gap is in the field of industrial sewing machines. With the rise in internal and external demand for ready-made garments, there is a need for establishing production of industrial sewing machines including those required for leather goods industry. It is also necessary to create additional production facilities for fully automatic zig-zag machines for export. Diversification of the existing units for the manufacture of these types of machines will be considered on merits.

2.2. The sewing machines intended for export markets would need greater focus on inter-changeability of components, improved appearances and quality.

2.3. Foreign technical collaboration is permissible for the manufacture of industrial sewing machines. Although the Government would continue to encourage production of domestic sewing machines in the small scale sector, proposals for new capacities in the organised sector would also receive consideration if they are composite schemes for production of both domestic and industrial sewing machines with emphasis on export of domestic sewing machines.

2.4. The principal indigenous raw materials for the industry are foundry grade pig iron, hot and cold rolled steel sheets strips, mild steel plates and bars, free cutting steel bars and plating chemicals. The imported materials are primary nickle and alloy steels. The import content of domestic sewing machines is negligible.

DOMESTIC REFRIGERATORS

Present Status

1.1. There are at present seven units licensed for the manufacture of domestic refrigerators with a total capacity of 185,800 nos. An additional capacity of 85,000 nos. has been approved.

1.2. The production during the last 3 years was as under:

1973	108,840 nos.
1974	102,869 nos.
1975	106,000 nos.

1.3. Import of domestic refrigerators is not permitted.

Future Scope

2.1. According to the draft Fifth Plan, the demand for domestic refrigerators would be 1.65 lakhs by 1978-79. It is not proposed to set up new units for manufacture of domestic refrigerators. However,

proposals for expansion of existing units on consideration of economic viability and for exports may be considered on merits.

2.2. The technology for the manufacture of compressor type domestic refrigerators is available indigenously.

Exports

2.3. The exports during the last 3 years were as under:

1973	12,441 nos.
1974	7,406 nos.
1975	4,000 nos.

INDUSTRIAL WEIGHING MACHINERY

Present Status

1.1. At present, there are 5 units registered/licensed to manufacture various types of weighing machinery for a total capacity of Rs. 990 lakhs per annum. In addition, there are 5 more firms who have been issued letters of intent for a capacity of Rs. 250 lakhs per annum. The present range of production covers various items ranging from domestic balance, spring balance, crane weighers, semi and self-indicating counter-scales, ratio counting machines, personnel weighers, pre-determined weighers, milk weighing scale, airport baggage weighers and weigh bridges both for road as well as railways. The production of the industry during the last three years was as under:

1973	Rs. 279 lakhs
1974	Rs. 426 lakhs
1975	Rs. 630 lakhs

1.2. Export efforts have also been made for conventional types of equipments. During the period 1973-74, equipment worth Rs. 13.13 lakhs was exported.

Future Scope

2.1. The specific demand for such equipment has not been assessed. The present demand pattern does not suggest creation of any additional capacity. The applications for diversification/expansion may, however, be considered on merits.

LP GAS CYLINDERS

Present Status

1.1. At present 16 units have been registered with the DGTD for the manufacture of L P gas cylinders. Out of these, 7 units are in production. The demand for these gas cylinders in the coming years, as estimated by the various oil companies, is indicated below:

1976-77	468,500 nos.
1977-78	231,000 nos.
1978-79	169,800 nos.

1.2. Against the above demand, the production during the last three years is indicated below:

1973	50,022 nos.
1974	296,800 nos.
1975	533,800 nos.

Future Scope

2.1. From the above, it will be seen that the capacity installed in the country is sufficient to take care of the future demand. Accordingly, there is no scope for creation of additional capacity for the manufacture of these cylinders.

ROUGH SYNTHETIC GEM STONES

Present Status

1.1. Synthetic gems are used as bearings in watches, instruments and water meters. Only one unit engaged in the manufacture of synthetic gem stones has an installed capacity of 24,000 kgs. per annum.

1.2. The production during the last three years was as under:

1973	12,180 kgs.
1974	12,550 kgs.
1975	13,340 kgs.

1.3. Imports of synthetic gem stones during the last three years were as under:

1972-73	Rs. 9.8 lakhs
1973-74	Rs. 6.7 lakhs
1974-75	Rs. 8.1 lakhs

Future Scope

2.1. The DGTD has assessed the demand for synthetic gem stones at about 30,000 kgs. by 1978-79. There is scope for creating additional capacity in this industry.

2.2. The minimum economic size of a unit is assessed at 25,000 kgs. per annum. A unit of this size will involve an investment of about Rs. 35 lakhs. A major portion of the plant and equipment will have to be imported. The main raw material, namely aluminium hydrate of special grade and quartz cups will have to be imported.

SCIENTIFIC INSTRUMENTS INCLUDING OPTICAL INSTRUMENTS

Present Status

1.1. This group covers Scientific Instruments, Optical

Instruments, Laboratory Analytical Instruments and Laboratory Testing Instruments. The total licensed capacity is Rs. 1,453 lakhs per annum. Letters of intent have been issued for an additional capacity of Rs. 330 lakhs.

1.2. Production during the last three years was as under:

1973	Rs. 909.5 lakhs
1974	Rs. 843.3 lakhs
1975	Rs. 910.0 lakhs

1.3. Imports figures are not separately available for these items. Some of the simple types of scientific instruments are being exported.

1.4. Raw materials required by these industries are brass tubes, aluminium, flexiglass, clear perspex sheets, stainless steel, etc.

Future Scope

2.1. The main items which are being imported currently are microscopes of high magnification, analytical instruments and automatic balances. Additional capacity for manufacture of these items needs to be created. There is also need for production of teaching aids for use in Schools and Colleges.

2.2. Foreign collaboration can be considered in selective fields on merits.

2.3. Many units are engaged in this industry in the small scale sector. There is need to set up capacity to produce specialised components which could be used by units in the small scale sector.

ELECTRO-MEDICAL EQUIPMENTS

Present Status

1.1. Items covered under this group are Electro Cardiograph, Multichannel Cardioscope, Ultraviolet/ Infra Red Therapy. Equipment, Coblat Therapy equipment, etc. The total capacity covered by industrial licences/registrations is Rs. 268 lakhs. Letters of intent have been issued for an additional capacity of Rs. 102 lakhs. There are at present seven units in production with an annual capacity of Rs. 140 lakhs.

1.2. The production of the units in the organised sector during the last three years is given below:

1973	Rs. 38.2 lakhs
1974	Rs. 59.2 lakhs
1975	Rs. 73.0 lakhs

Import/Export figures for electro-medical equipments during the last two years were as under:

<i>Year</i>	<i>Import</i>	<i>(Rs. lakhs)</i>
		<i>Exports</i>
1973-74	128.62	3.45
1974-75	171.36	4.41

Future Scope

2.1. The Ministry of Health is working out the details of the demand for medical equipments. Additional capacity needs to be created in this field. Specific areas where development is needed are anaesthesia monitoring systems and monitoring records of catheterization, electro-anaesthesia implant pace-makers, monitoring and recording equipment for inspection of respiration system (pneumotochograph). The demand for these items is likely to be substantial and is estimated to be of the order of Rs. 4 to 5 crores by 1978-79.

2.2. Know-how for many of the items is available with the Central Scientific Instruments Organisation, LRDE, etc. Foreign collaboration can be considered for specialised items on merits.

2.3. Since these are important items of medical equipment, strict quality control is to be ensured. Proper facilities for testing and evaluation should form a part of the proposals.

INDUSTRIAL PROCESS CONTROL INSTRUMENTS

Present Status

1.1. The total licensed capacity for process control instruments including control valves in the organised

sector is Rs. 22.4 crores. An additional capacity of Rs. 8.85 crores is covered by letters of intent. There are 10 units in production with an installed capacity of Rs. 15.7 crores. A capacity of Rs. 5.5 crores for the production of control valves and accessories is under installation.

1.2. Production during the last three years was as under:

1973	Rs. 8.02 crores
1974	Rs. 8.20 crores
1975	Rs. 14.20 crores

1.3. The major items of raw materials imported for the manufacture of these instruments are stainless steel tubes, impulse pipes, stainless steel sheets, capillary tubes, compensating cables, etc. Indigenous raw materials include items like CRCA sheets, copper tubes, copper conductor cables, etc.

Future Scope

2.1. The Development Council has estimated the demand during the entire Fifth Plan period at Rs. 167 crores. The major items for which capacity is to be established are level transmitters, magnetic turbine flow meters, supervisory controls, etc. This demand could be met by diversification and expansion of the existing units. There is no scope for the establishment of new units during 1976-77.

2.2. Foreign collaboration would be considered on a selective basis on merits.

FERTILISERS

Introduction

1.1. Since the scope for increasing agricultural output through increase in acreage is limited, the need for achieving higher yield through intensive methods of cultivation is obvious. The expansion of fertiliser industry, therefore, has been accorded high priority.

1.2. Nitrogen and phosphorous are the two plant nutrients manufactured by Indian fertiliser industry. These nutrients are marketed in the form of straight and complex fertilisers such as ammonium sulphate, urea, CAN, DAP, nitrophosphate, NPKs, single and triple superphosphate, etc. Potassic fertilisers are not being manufactured presently due to non-availability of raw materials in India. However, efforts are being made to recover the same from sea water bitterns. Imports of various fertilisers during 1974-75 amounted to Rs. 600 crores.

1.3. In terms of tonnage of nutrient production as well as the volume of capital investment, nitrogenous fertiliser sector is the most important followed by phosphatic fertilisers. The public sector accounts for a large share of the installed capacity.

NITROGENOUS FERTILISERS

Present Status

1.1. There are 20 large fertiliser plants (excluding small by-product fertilisers from cokeries), with a total installed capacity of 25.09 (nitrogen), of which 11.87 lakh tonnes (nitrogen) capacity is in the public sector and 2.15 lakh tonnes (nitrogen) in the co-operative sector.

1.2. The production during 1975 mainly naphtha based, amounted to about 14.20 lakh tonnes (nitrogen). Other feedstocks like electrolytic hydrogen, lignite, coke, coke oven gas and natural gas are also used.

1.3. Imports of nitrogenous fertilisers during the past years was as under:

1971-72	499,000 tonnes
1972-73	691,000 tonnes
1973-74	659,000 tonnes
1974-75	884,000 tonnes

1.4. An additional capacity of 36.63 lakh tonnes (nitrogen) has been planned. Most of the schemes are in various stages of progress and with their implemen-

tation, the installed capacity will rise to 46.90 lakh tonnes (nitrogen) by the end of Fifth Plan.

Future Scope

2.1. The draft Fifth Plan indicates the targets for a capacity of 60 lakh tonnes (nitrogen) by 1978-79. In view of the long gestation period for this industry, it is also envisaged to have a capacity of 10 lakh tonnes (nitrogen) in the pipeline to meet the additional requirements of capacity in the first few years of the Sixth Plan. There is, therefore, scope for approving additional capacity to this extent during the year.

Feed Stock

3.1. So far, the bulk of the feed-stock for production of nitrogenous fertilisers has been naphtha. In view of the uncertain availability of oil and the fact that this is likely to continue for quite some time, the future capacity will necessarily have to be based on alternative domestic feed-stocks, such as coal and natural gas. It is understood that adequate quantity of natural gas would be available from Bombay high and Kutch areas.

3.2. In the interest of standardisation, it is desirable that the future ammonia plants are of a capacity of 900 tonnes per day for inland locations and 1,350 tonnes per day for coastal locations. Plants for urea will correspondingly be considered for sizes of 1,000, 1,250, 1,500, and 2,000 tonnes per day depending on the extent of complex fertiliser production.

PHOSPHATIC FERTILISERS

Present Status

1.1. Phosphatic fertilisers comprise complex fertilisers as well as single and triple superphosphate complex fertilisers. These are being manufactured at Trombay, Alwaye and Madras in the public sector and at Ennore, Baroda, Goa and Visakhapatnam in the private sector. The total capacity of these seven units is 333,000 tonnes (P_2O_5) per annum.

1.2. There are 29 units for the production of single superphosphate and one for triple superphosphate with a total capacity of 227,000 tonnes (P_2O_5). Production in these units during 1973-74 and 1974-75 was 130,000 and 135,000 tonnes (P_2O_5) respectively.

The total capacity in phosphatic fertilisers is 692,000

tonnes (P_2O_5). The production during 1975 was 320,000 tonnes. Single superphosphate units have found it difficult to utilise their capacity adequately.

1.3. The main raw materials required for the production of phosphatic fertilisers are rock phosphate and sulphur. These are mostly imported except for a limited production of rock phosphate in Rajasthan. A part of the phosphatic fertiliser production is based on imported phosphoric acid.

1.4. Import of these fertilisers during the previous year was as under:

1971-72	248,000 tonnes
1972-73	204,000 tonnes
1973-74	215,000 tonnes
1974-75	281,000 tonnes

The types of fertilisers imported were as under:

Diammonium phosphate
Monoammonium phosphate
Ammonium nitrate phosphate and
NPK complex fertilisers.

1.5. An additional capacity of 168,000 tonnes (P_2O_5) has been approved.

1.6. The production in Kandla, Madras and Goa is based on imported phosphoric acid for sometime. The projects at Sindri and Khetri are expected to produce triple superphosphate. Nitrophosphate will be manufactured by the projects at Haldia and Trombay.

Future Scope

2.1. The draft Fifth Plan envisages development of 17 lakh tonnes of capacity and 12.5 lakh tonnes of production by 1978-79. Taking into account the time lag in achieving optimum level of production, there would be further scope for licensing additional capacity.

2.2. Sulphur will continue to be imported. From the point of view of minimising the use of sulphur in the production of phosphate fertilisers, manufacture of nitrophosphate is desirable. However, specific cases will be examined in terms of suitability of soil conditions, climate, crops and the level of water solubility. Proposals utilising sulphur dioxide gases from roasting of iron pyrites, copper smelters, zinc smelters and from reduc-

tion of gypsum by carbon would be preferred over the ones based on imported sulphur for manufacture of sulphuric acid. Alternatively, hydro-chloric acid from caustic chlor industry for manufacture of phosphoric acid would have to be considered.

2.3. In regard to rock phosphate, though the dependence on imports will continue, indigenous production from the deposits located in Rajasthan, U.P., Madhya Pradesh, etc. is expected to be expanded substantially during the Fifth Plan period.

Foreign Collaboration

3.1. Proposals for foreign collaboration for manufacture of nitrogenous fertilisers as well as complex fertilisers will be considered on merits with reference to the requirements of process and design engineering know-how and other factors.

Capital Equipment

4.1. Facilities for indigenous fabrication of several items of fertiliser plants have been established both in the public and private sectors. The industry is, however, still dependent on imports for certain specialised items of equipment like high pressure vessels and reactors, seamless steel pipe fittings, pumps and instruments.

4.2. In the context of the expansion of the fertiliser industry, the following general guidelines need be kept in view.

4.3. Submission of project proposals may be preceded by preliminary discussions with the Adviser (Fertilisers), Ministry of Chemicals and Fertilisers, on such aspects as location, feed-stock, product mix and manufacturing programme, plant capacity, project finance and its source as well as procedural requirements. Similarly the Ministry of Agriculture will also have to be consulted with reference to the requirements of products in specific areas and the proposed manufacturing programme.

4.4. Applications for letters of intent should be made on the basis of advance market studies and project feasibility reports. Accordingly, detailed feasibility reports on these aspects should be submitted as part of the proposals.

CHEMICALS

(Other than Fertilisers)

SODA ASH

Present Status

1.1. There are 4 units in production with a total installed capacity of 6.33 lakh tonnes per annum. Production during the last three years was as under:

1973	469,124 tonnes
1974	518,000 tonnes
1975	541,400 tonnes

Three factories (based on Standard Solvay Process) are located in the Saurashtra region, where the raw material of acceptable grade i.e. salt and limestone are available. The fourth unit with a capacity of 40,000 tonnes per year (based on Dual Solvay Process) is located at Varanasi (U.P.).

Future Scope

2.1. The draft Fifth Plan targets (1978-79) of production and capacity are indicated below:

- (i) Production 8.8. lakh tonnes
- (ii) Capacity 11.0 lakh tonnes

2.2. As against the capacity of 11 lakh tonnes to be installed by the end of Fifth Plan (1978-79), licensing has been done as under:

- (i) Present Licensed capacity 8.33 lakh tonnes
 - (ii) Capacity covered by letters of intent 7.13 lakh tonnes
- 15.46 lakh tonnes

2.3. Taking into account the long gestation period, Government have invited fresh proposals from entrepreneurs for setting up additional capacity to meet the increased demand for soda ash during the Sixth Plan period.

2.4. For units adopting Standard-Solvay (Dual) process, 400 tonnes per day plant is considered to be economically viable. In the case of modified Solvay (Dual) process, the economic unit could be for a capacity of at least 200 tonnes per day of soda ash and ammonium chloride. Applications for establishment of soda ash units should preferably be accompanied by preliminary feasibility reports. The reports should indicate the time schedule for implementation of the project, details regarding location, arrangements for procurement of salt and limestone, coal, power, etc. In the case of modified dual solvay process, the feasibility

report should also contain information regarding arrangements for obtaining ammonia and carbon dioxide and scheme for disposal of co-product: viz., ammonium chloride.

Cost Structure and Technology

3.1. Soda ash is a capital intensive industry. The capital required for a new plant of 400 tonnes per day capacity based on Standard Solvay Process is estimated at about Rs. 22 to Rs. 24 crores. A modified Dual Solvay process plant of economic size, without having its own ammonia making facility, is likely to cost Rs. 17 to 18 crores.

CAUSTIC SODA

Present Status

1.1. There are presently 31 units manufacturing caustic soda with an annual installed capacity of 6.04 lakh tonnes as on 1.1. 1976. Additional capacity licensed and under implementation is of the order of 1.55 lakh tonnes per annum. Further, capacity approved and covered by letters of intent as on 1.1. 1976 totals to 8.94 lakh tonnes per year. Production of caustic soda during the last three years was as under:

1973	411,804 tonnes
1974	431,550 tonnes
1975	442,664 tonnes

All the units are manufacturing caustic soda by electrolytic process except one unit which is based on chemical process using soda ash as the basic raw material.

Future Scope

2.1. Targets for Fifth Plan (1978-79) for the production of caustic soda and the corresponding capacity required to be installed, are as under:

- (i) Target of production 785,000 tonnes
- (ii) Target of capacity 1,000,000 tonnes

In view of the long gestation period, the Government have invited proposals from entrepreneurs for setting up additional capacity for caustic soda to meet the increased demand during the Sixth Plan period.

Cost Structure and Technology

3.1. Caustic soda is a capital intensive industry. The

capital investment on a 33,000 tonnes per year capacity merchant plant, which is considered as the minimum economic size, with provision for utilisation of chlorine is about Rs. 15 to 16 crores. A 50 tonnes per day plant (16,500 tonnes per year) can also be considered economical, if it is put up for captive requirements.

3.2. Salt, electric power, graphite anodes and mercury are the principal raw materials/consumables required for the manufacture of caustic soda, and the location of new units should be decided taking these factors into account, as well as the regional demand pattern.

SULPHURIC ACID

Present Status

1.1. In the beginning of 1976, 69 units were engaged in the production of sulphuric acid with an installed capacity of 25.37 lakh tonnes per annum. Further, industrial licences and letters of intent have been issued for an additional capacity of 21.90 lakh tonnes. Some of these schemes are at different stages of implementation.

1.2. Out of the above, five units with an installed capacity of 453,310 tonnes per annum are producing sulphuric acid from sulphur dioxide gas obtained from the roasting of iron pyrites, zinc pyrites and copper pyrites. The only plant using iron pyrites is worked mainly for recovery of sulphur equivalent. The rest of the units are based on the use of imported elemental sulphur. For a total production of approximately 13.8 lakh tonnes of sulphuric acid in 1975, a quantity of 4.73 lakh tonnes of imported sulphur would have been required, if all the production was obtained from elemental sulphur. However, from the 5 non-sulphur based units (indicated earlier) about 75,000 tonnes of sulphuric acid were produced contributing to an import substitution of approximately 26,000 tonnes of sulphur.

1.3. Production of sulphuric acid during the last 3 years has been:

1973	13.30 lakh tonnes
1974	14.33 lakh tonnes
1975	13.77 lakh tonnes

The overall utilisation of installed capacity has been around 58%.

1.4. Imports are confined to small quantities of very high purity sulphuric acid, to meet the requirements of research institutions, etc.

There is a sizable export market for commercial sulphuric acid. Export figures for the last 3 years are:

1972-73	1439 tonnes	Rs. 11.9 lakhs
1973-74	974 tonnes	Rs. 9.0 lakhs
1974-75	3052 tonnes	Rs. 49.3 lakhs

Requirements and Targets

1.1. The draft Fifth Plan envisages a production target of 32 lakh tonnes of sulphuric acid per annum with a corresponding targetted capacity of 40 lakh tonnes by 1978-79. The basis of this estimate is as under:

Sl. No.	Name of consuming industry	Tonnes of sulphuric acid needed by 1978-79 per year
1.	Phosphatic Fertilizer Industry	2,000,000
2.	Ammonium Sulphate Industry	300,000
3.	Alumina Ferric/Alum Industry	100,000
4.	Chlorosulphonic Acid Industry	10,000
5.	Bichromates Industry	10,000
6.	Phosphoric acid (Industrial Purposes)	200,000
7.	Titanium Dioxide Industry	80,000
8.	Viscose Rayon & Staple Industry	250,000
9.	Pickling of Steel Industry	150,000
10.	Petroleum Refinery, organic chemicals, drugs, boric acid, rare earths, Non-ferrous metals, food and beverages, battery acid, etc.	100,000
	Total	3,200,000

2.2. The phosphatic fertilizer industry has, however, not taken the direction as envisaged and, therefore, requirements of sulphuric acid have not kept up with the estimates. It is expected that with intensive cultivation methods, the consumption pattern of phosphatic fertilizers will be set right and the requirements of sulphuric acid will substantially increase. On this trend, the requirement of sulphuric acid can be estimated to be of the order of 50 lakh tonnes per year by 1983-84 requiring an installed capacity of approximately 62.5 lakh tonnes per year.

Future Scope

3.1. In addition to the existing installed capacity of 25.37 lakh tonnes per year of sulphuric acid, it is estimated that an additional capacity of 6.6 lakh tonnes will be installed by the holders of industrial licences-/letters of intent, raising the installed capacity to approximately 32 lakh tonnes against the targetted capacity of 40 lakh tonnes by 1978-79. There is scope for licensing additional capacities on a selective basis, particularly for captive consumption in fertiliser units.

3.2. As India does not have natural deposits of elemental sulphur, the requirement of sulphur for the industry have to be met from imports. In order to reduce this dependence on imports, it would be desirable to base the future production of sulphuric acid to the extent possible on indigenous metallic sulphide ores or other forms of indigenous combined sulphur like gypsum, magnesium sulphate, etc.

3.3. As two proved sources of iron pyrites of appreciable quantities are available at Amjhore in Bihar and Saladipura in Rajasthan, it would be desirable to put up large capacity sulphuric acid plants (500 tonnes per day or more) based on iron pyrites. Special consideration would be given to such proposals.

3.4. Government would generally prefer that additional capacity for sulphuric acid is set up by expansion of capacity of units which produce less than 100 tonnes per day. In exceptional cases, small capacity plants for manufacture of sulphuric acid entirely for captive purpose may be considered.

3.5. Foreign collaboration is not considered necessary. However, foreign collaboration proposals envisaging production of sulphuric acid based on metallic sulphates may be considered on merits.

3.6. Most of the plant and equipment required for manufacture of sulphuric acid is available from indigenous sources.

ALUMINA FERRIC, ALUMINIUM SULPHATES AND ALUMS

Present Status

1.1. Alums and alumina ferric are principally used in the purification of potable water by municipalities and industrial organizations for sizing of paper, etc. Aluminium sulphate is also used for purification of water, sizing of paper and textiles, mordanting of dyes, for tanning of skins and hides, etc.

At present, 15 units with an installed capacity of 2.45 lakh tonnes per year of alumina ferric, aluminium sulphates and alums are in production. Further industrial licences, letters of intent and registrations have been sanctioned for an additional capacity of 3.58 lakh tonnes per annum. It is estimated that about one lakh tonnes of additional capacity will be implemented by the end of 1978-79.

1.2. Production of these three varieties of chemicals in the last three years has been as follows:

1973	119,698 tonnes
1974	109,582 tonnes
1975	138,554 tonnes

The overall utilization of installed capacity has been around 57%.

1.3. These three products are not imported in the country as there is enough capacity available for meeting the requirements. Exports of these three chemicals have been as under:

	Quantity	Value
1972-73	15,615 tonnes	Rs. 45.3 lakhs
1973-74	15,219 tonnes	Rs. 46.8 lakhs
1974-75	14,314 tonnes	Rs. 72.6 lakhs

Future Scope

2.1. The Task Force had estimated that by 1978-79, the requirements of alums/alumina ferric would be of the order of:-

1. For paper sizing	1,30,000 tonnes
2. For water purification	1,00,000 tonnes
3. For tanning, Mordant and Miscellaneous use	40,000 tonnes
4. For exports	30,000 tonnes
Total	3,00,000 tonnes

The Task Force had suggested a capacity target of 3.75 lakh tonnes per year, and that in view of good export potential licensing should be on liberal basis.

2.2. It is estimated that with the extension of water supply schemes in urban and semi-urban areas, larger number of water purification works for drinking water as well as for treatment of larger quantities of industrial water will be set up in future years. On this basis, the requirement of this group of chemicals may rise to about 4 to 4.5 lakh tonnes by 1983-84. Therefore, for meeting this requirement, there is some scope for approving further capacity. Sulphuric acid, good quality bauxite and large quantity of water together with copious availability of steam are the principal requirements for production of alumina ferric, alumina sulphates and alums. Depending upon the availability of these raw materials and utilities, additional licensing may be considered in selected areas.

SODIUM HYDROSULPHITE

Present Status

1.1. At present, there are five units engaged in the production of sodium hydrosulphite, employing the amalgam process or the zinc process. The annual installed capacity is 13,368 tonnes per annum, and an additional capacity of 7,800 tonnes per annum has been approved.

1.2. The production during the last few years has been as under:

1973	9,170 tonnes
1974	8,699 tonnes
1975	8,000 tonnes

The capacity utilisation during 1975 has been of the order of 60%.

The import and export of sodium hydrosulphite during the past has been as under:

Year	Imports		Exports	
	Tonnes	Rs. lakhs	tonnes	Rs. lakhs
1973-74	172	1.58	25.9	1.58
1974-75	8	0.65	292.3	19.35

Future Scope

2.1. It has been estimated that the demand for sodium hydrosulphite by the end of 1978-79 will be of the order of 15,000 tonnes per annum. Further scope for licensing in this field would depend on the progress of implementation of approved schemes.

2.2. As an import substitution measure, it would be desirable to establish capacity based on the sodium formate process rather than the zinc dust process.

2.3. Most of the plant and machinery is available within the country. Proposals for foreign collaborations, involving new processes of manufacture, will be considered on merits.

ORGANIC CHEMICALS

PHENOL

Present Status

1.1. The production of phenol during 1975 was 8606 tonnes as against the installed capacity of 18,000 tonnes. An additional capacity of 25,000 tonnes has been approved, with substantial export obligations.

Future Scope

2.1. The Task Force on petro-chemicals has assessed the demand for phenol by 1978-79, at 30,000 tonnes per annum. There is no further scope for licensing additional capacity in this industry.

METHANOL

Present Status

1.1. As against an installed capacity of 37,000 tonnes, the production of methanol during 1975 was 27,031 tonnes. An additional capacity of 150,000 tonnes has been approved.

Future Scope

2.1. The demand for methanol has been estimated as 110,000 tonnes per annum by 1978-79. Having regard to the approved capacity, there is no scope for setting up additional capacity during 1976-77.

NITRO BENZENE

Present Status

1.1. During 1975, production of nitro-benzene, an important intermediate for the manufacture of aniline, dyes and drugs was 8,648 tonnes, against an installed capacity of 12,200 tonnes. An additional capacity of 12,000 tonnes has been registered.

Future Scope

2.1. The estimated demand for nitrobenzene by 1978-79 is about 30,000 tonnes per annum. Plans are

underway to increase nitrobenzene capacity of the public sector undertaking in Maharashtra to 22,000 tonnes per annum. There is thus no scope for creation of any additional capacity.

ANILINE

Present Status

1.1. The production of aniline, an intermediate used in the manufacture of rubber chemicals, dye-stuffs and drugs, during 1975 was 5242 tonnes as against an installed capacity of 6,000 tonnes.

Future Scope

2.1. The demand for aniline by 1978-79 has been assessed at 12,000 tonnes. Plans are underway to increase the capacity of the public sector project in Maharashtra to 13,000 tonnes per annum. There is no scope for creation of additional capacity for aniline.

ACETIC ACID

Present Status

1.1. There are nine units engaged in the manufacture of acetic acid with an installed capacity of 23,000 tonnes per annum. The production of acetic acid during 1975 was about 18,000 tonnes. Additional capacity of about 24,000 tonnes has been approved recently.

Future Scope

2.1. The demand for acetic acid including captive requirements for vinyl acetate has been assessed as 35,000 tonnes per annum by the end of the Fifth Plan period. Having regard to the capacity already approved, there is no scope for creating further capacity in this field.

DMT

Present Status

1.1. DMT is one of the major raw materials for manufacture of polyester. As against the installed capacity of 24,000 tonnes per annum, the production during 1975 was 15,553 tonnes. Further capacity of 33,000 tonnes has been approved for a public sector project in Assam.

Future Scope

2.1. The demand for DMT by 1978-79 would be of the order of 58,000 tonnes per annum. As adequate capacity has already been approved, creation of additional capacity during 1976-77 is not envisaged.

POLYPROPYLENE FIBRE

Present Status

1.1. Polypropylene fibre could to some extent be blended with wool, cotton and other man-made fibre for apparel use, and can also be used for carpet backing/piling etc. A capacity of 6,000 tonnes of polypropylene fibre has been approved based on polypropylene resins to be manufactured by a public sector project in Gujarat.

Future Scope

2.1. There would be no additional fibre grade polypropylene available for supporting further capacity for manufacture of polypropylene fibre.

THERMOPLASTIC RESINS

Present Status

1.1. The thermoplastics resins for which capacity has presently been set up in the country are PVC, low and high density polyethylene and polystyrene. The demand for thermoplastics which was low in 1974, gradually picked up towards the later part of 1975, with the exception of polystyrene, where the demand continued to be low.

1.2. The production of various thermoplastic resins during 1975 was as under:

<i>Low density</i>	
Polyethylene	26,600 tonnes
<i>High density</i>	
Polyethylene	20,600 tonnes
PVC	41,400 tonnes
Polystyrene	9,100 tonnes

Future Scope

2.1. Additional capacity for PVC to the extent of 57,000 tonnes has been approved, and if this capacity materialises, there would be no scope for creating further capacity. With regard to polystyrene too, there is no further scope for approving additional capacity. A public sector project in Gujarat would shortly be implementing a 80,000 tonnes per annum low density polyethylene project and this together with the expansion permitted to another unit in Maharashtra would take care of Fifth Plan demand. Setting up of additional capacity for high density polyethylene will be considered on merits.

THERMOSETS

Present Status

1.1. The production during 1975 of urea formalde-

hyde, melamine formaldehyde, phenol formaldehyde and cellulose acetate moulding powder was 1767, 3192, 116 and 1003 tonnes respectively as against corresponding installed capacity of 5150, 6200, 1490 and 7200 tonnes respectively.

Future Scope

2.1. Since sufficient capacity has already been approved to cover the likely demand by 1978-79, there is no scope for additional capacity in this industry.

SYNTHETIC RUBBER

Present Status

1.1. Styrene butadiene rubber and polybutadiene rubber find application in tyre industry, footwear industry and in other rubber goods industry. Butyl rubber is mostly used for pneumatic tubes and speciality rubbers like nitrile rubber, neoprene (polychlorophene) and polysulphide rubbers are used in the manufacture of gaskets, bushes, hoses and other components.

1.2. Indigenous production of SBR synthetic rubber during 1975 was 22,958 tonnes against an installed capacity of 32,000 tonnes per annum.

Future Scope

2.1. The draft Fifth Plan target of capacity for synthetic rubber is 55,000 tonnes per annum by 1978-79. Apart from the installed capacity for SBR, a public sector project at Baroda would be establishing a capacity of 20,000 tonnes per annum of polybutadiene rubber. In addition, a scheme for the manufacture of certain speciality rubbers has been approved. During 1976-77, the scope for licensing further capacity is limited to Butyl rubber and speciality rubbers such as polysulphide rubber, polychlorophene rubber, etc.

CALCINED PETROLEUM COKE

Present Status

1.1. Calcined petroleum coke is the major raw material used in the manufacture of various carbon and graphitised carbon products.

1.2. There are, at present, three units, one in the public sector, manufacturing calcined petroleum coke with a total installed capacity of 126,000 tonnes per annum. The production of calcined petroleum coke during the last three years was as follows:

	<i>Tonnes</i>	<i>Rs. lakhs</i>
1973	67,263	326
1974	94,179	1,486
1975	90,281	1,531

1.3. The current availability of raw petroleum coke

from refineries at Barauni, Gauhati and Digboi is about 150,000 tonnes per annum. This is sufficient only for a production of 115,000 tonnes of calcined petroleum coke. As the demand for calcined petroleum coke from the user industries viz., aluminium and carbon products is expected to rise to about 288,000 tonnes by 1978-79, four more units have been registered at Haldia, Goa, Visakhapatnam and Madras with a capacity of 50,000 tonnes each to manufacture calcined petroleum coke from imported raw petroleum coke. Two of these units, one at Goa and the other at Haldia are likely to start production during 1976 thereby raising the installed capacity for calcined petroleum coke to 226,000 tonnes. The forthcoming oil refinery at Bongaigaon is also expected to manufacture 45,000-60,000 tonnes of calcined petroleum coke by 1978-79.

1.4. An additional production of 75,000 tonnes of raw petroleum coke is visualised at Barauni, but this is dependent on the additional availability of Assam crude to the Barauni refinery.

Future Scope

2.1. Sufficient capacity has been approved to take care of foreseeable demand. It is not proposed to approve additional capacity in this industry during 1976-77.

2.2. Technology for manufacture of calcined petroleum coke is indigenously available and there is no need for foreign collaboration in this field.

2.3. Plant and equipment for calcined petroleum coke industry is, by and large, available from indigenous sources, except for some special instrumentation, which may have to be imported.

MAN-MADE FIBRES (CELLULOSIC TYPE)

Present Status

1.1. Man-made fibres (Cellulosic type) consist of viscose staple fibre/filament yarn and viscose rayon tyre cord. These fibres are being increasingly used for the manufacture of textiles and automobile tyres. Due to difficult supply position of petro-chemicals such as caprolactum, the use of man-made fibres which are based on rayon grade wood pulp needs to be encouraged. But licensing and creation of capacity for these fibres have in the past, been ahead of pulp capacity which needs to be reversed.

1.2. The present position in regard to the licensed capacity, installed capacity and production during 1975 is given below:

	<i>Installed Units</i>	<i>Capacity (Tonnes)</i>	<i>Production (Tonnes)</i>
Viscose staple fibre	2	89,000	67,522
Viscose rayon yarn	8	40,000	32,326
Viscose rayon tyre cord	3	21,000	19,000
Cellophane film	2	7,000	4,000

Future Scope

2.1. In the case of viscose rayon staple fibre, Fifth Plan target of production has been fixed at 145,000 tonnes. To achieve this target, additional capacity of 107,500 tonnes has been approved. The additional capacity is mainly for polynosic type of staple fibre which is more akin to cotton in properties and texture. However, in view of the slow implementation of approved scheme, there is scope for approving additional capacity in this field, but owing to shortage of rayon grade wood pulp in the country, only integrated schemes for the manufacture of both the fibre and pulp will be considered, and there is need for pulp capacity in excess of fibre capacity to take care of the filament yarn units set up without matching pulp capacity.

2.2. So far as viscose rayon filament yarn is concerned, there is some scope for further licensing of additional capacity so as to achieve the Fifth Plan target of 55,000 tonnes per annum, but this being a capital intensive industry, the financing of new capacity creation could be a problem since the resources of financial institutions are not likely to be available in any significant measure for new fibre/yarn capacity. The schemes should be based on indigenous pulp, failing which they would not be considered.

2.3. The demand for rayon tyre cord yarn has picked up due to high cost of nylon tyre cord both in the domestic and export markets. The Fifth Plan target aims at achieving capacity of 25,000 tonnes per annum by 1978-79. There is scope for creation of additional 4,000 tonnes capacity.

2.4. The plant and machinery are mostly available from indigenous sources. Indigenous know-how is available and foreign collaboration is not considered necessary.

NYLON FILAMENT YARN

Present Status

1.1. Nylon filament yarn is mainly used for the manufacture of textiles. The production of nylon filament yarn in 1975 was 13,725 tonnes against the installed capacity of 16,036 tonnes per annum. An additional capacity of 34,414 tonnes per annum has been approved.

Future Scope

2.1. The draft Fifth Plan target aims at achieving a combined capacity and production target of 19,000 tonnes per annum of nylon filament yarn and staple fibre by 1978-79. Although a number of letters of intent have been issued for setting up new capacity as well as for effecting substantial expansion, the proposals of these parties for import of capital goods as well as foreign collaboration have been closed, as the question of

allowing additional capacity or foreign collaboration for the manufacture of nylon filament yarn are under review and a final decision is likely to take time.

NYLON TYRE CORD AND OTHER INDUSTRIAL YARNS

Present Status

1.1. Nylon tyre cord is used for the manufacture of automobile tyres to give strength and durability. The total production of this item in 1975 was 4241 tonnes against the installed capacity of 5790 tonnes per annum. An additional capacity of 5900 tonnes has been approved. Most of this capacity is expected to materialise before the end of the Fifth Five Year Plan period.

Future Scope

2.1. The draft Fifth Five Year Plan capacity and production targets for nylon tyre cord and other industrial yarns are 10,000 tonnes and 9,000 tonnes per annum respectively. As the schemes already licensed are expected to yield this capacity, no further licensing in this industry is contemplated during 1976-77.

POLYESTER STAPLE FIBRE AND POLYESTER FILAMENT

Present Status

1.1. Polyester staple fibre is extensively used for the manufacture of textiles. The installed capacity at present is 27,466 tonnes per annum. An additional capacity of 30,220 tonnes per annum has been approved. The production of polyester staple fibre during 1975 was 14,639 tonnes and the production of polyester filament yarn was 2,160 tonnes.

Future Scope

2.1. The Fifth Plan targets for capacity and production of polyester staple fibre/polyester filament yarn by 1978-79 are 59,000 and 45,000 tonnes per annum respectively. Taking into consideration the capacity already approved, no further licensing of capacity in this field is contemplated during 1976-77.

ACRYLIC FIBRE

Present Status

1.1. Acrylic Fibre is being widely used as substitute for wool in the manufacture of textiles. The total capacity covered by industrial licences is 16,000 tonnes per annum. The main raw material for this industry is acrylonitrile, which is based on naptha. The availability of acrylonitrile is limited.

Future Scope

2.1. The Fifth Plan aims at achieving a capacity and production target of 16,000 tonnes and 14,000 tonnes of acrylic fibre respectively by 1978-79. Since the raw material, namely, acrylonitrile would not be available in additional quantities, there is no scope for licensing further schemes in 1976-77.

PESTICIDES

(Insecticides, Fungicides, Weedicides and the like)

1.1. With the increasing emphasis being laid on plant protection and public health programmes, the demand for pesticides, such as insecticides, fungicides, weedicides, etc. is expected to increase sharply.

Present Status

2.1. The capacity covered by Industrial Licences is 70,465 tonnes per annum. An additional capacity of 54,423 tonnes per annum has been approved through letters of intent. Presently, 26 units in the organised sector with a total installed capacity of 58,385 tonnes per annum are engaged in the manufacture of pesticides.

2.2. The production of pesticides during the last 3 years was as under:

1973	31,650 tonnes
1974	32,646 tonnes
1975	35,000 tonnes

Future Scope

3.1. The Fifth Plan envisages production of 70,000 tonnes of pesticides by 1978-79. To achieve this target, a capacity of about 90,000 tonnes per annum would have to be developed. The break up of requirements of different pesticides is indicated in the statement at annexure A together with the details of capacities licensed and installed. As it will be seen from this statement, there are likely to be gaps in respect of certain types of pesticides. There is scope for licensing of capacity in respect of items like aldrin, chlordane, haptachlor, new carbamates like carbafulan and others based on methylisocyanates, organophosphatics like Dursban, Phosyel, formothion, disyston, thiometon, diazinon, thiodemeton, penthion, abate, systematic fungicides like benlate, vitavax and hinosan; acaricides like tedion and kelthane, weedicides and growth regulants like simazine, ethepon, nematocides like terracur and DDT.

4.1. Most of the plant and equipment for the manufacture of pesticides are available from indigenous sources. Proposals for foreign collaboration for the

manufacture of basic technical material would be considered on merits.

General

(a) Pesticides for use in India need clearance from the Registration Committee of the Central Insecticides Board. The intending entrepreneurs are required to furnish complete data to the Committee on the efficiency, toxicity and safety of the proposed products to enable them to take a view on its essentiality and suitability.

(b) Schemes for the manufacture of technical grade pesticides are generally subject to the condition that a specified percentage (normally 50%) of the actual

production will be supplied to the non-associated formulators.

(c) Special attention will have to be paid to meet the need for substituting certain types of pesticides, which generally have persistent residues and cause environmental pollution, by other safer types of pesticides which do not have such adverse effects. Similarly, the development of pesticides which can replace metallic salts in order to reduce import of non-ferrous metals calls for special attention.

(d) Formulation capacity is not permitted unless accompanied by time-bound proposals for manufacture of the corresponding technical pesticides.

PRODUCTION REQUIREMENTS OF PESTICIDES BY 1978-79.

(In tonnes)

<i>Name of pesticides/insecticides</i>	<i>1978-79 demand estimate</i>	<i>Installed capacity</i>	<i>Capacity covered by licences/ letters of intent</i>	<i>Capacity likely to be created in public sector</i>	<i>(Gap likely)</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Insecticides					
BHC	25900	28900	33300	—	—
DDT	5000	4088	—	5000	—
Malathion	3500	1700	7400	1800	—
(For Agri. use only)					
Endrin	80	—	—	—	—
Aldrin/Heptachlor/Dieldrin	450	—	—	—	450
Chlordane	140	—	—	—	140
Endosulfan	1800	—	4000	1600	—
Toxaphene	1200	250	1500	—	—
Carbaryl	8500	—	7000	—	1500
Parathion	—	—	—	—	—
Metasystox	3000	2550	275	—	—
Fenitrothion	—	—	—	—	—
Dimethoate	500	350	900	—	—
Phosphamidon	650	636	—	—	—
DDVP	300	276	1400	—	—
Monocrotophos	450	—	—	—	—
Phorate	450	—	1050	—	—
Disyston	200	—	—	—	200
Thiodemeton	200	—	—	—	200
Formothion	200	—	—	—	200
Thiometon	100	—	—	—	100
Quinalpinos	300	200	—	—	100
Cytrolene	250	—	250	—	—
Mis. Insecticides (Carbafuran, Aldicarb, Methomyl, Phenothoate, Dicrotophos, Phosvel, etc.)	1330	600	1050	—	—
Fungicides					
Copper Oxychloride	650	2284	—	—	—
Thiocarbamates (Zineb, Maneb etc.)	5000	3550	2400	—	—
Nickle Chloride	150	300	—	—	—
Organo Mercurials	15	86	—	—	—
Wettable Sulphur	1000	1500	—	—	—

1	2	3	4	5	6
Other Misc. Fungicides					
like Benlate, Organic tin, Compounds Hinosen, PCNB, Vitavax Plantavax, Fenitiazon etc.	500	—	135	—	365
Acaricides					
Tedion/Morocide/Ethion/Morestan/ Kelthane	150	—	120	—	30
Antibiotics					
Aureofungin and Streptocycline	5	0.5	—	—	4.5
Weedicides					
2,4-D and 2,4,5,T Group	1000	1935	—	—	—
Paraquat	500	—	2500KL	—	—
Dalapon	800	—	250	—	—
Propanil	250	—	1500	—	—
Nitrofen	500	—	—	—	—
Trialleto/Alachlor/Butachlor/Propachlor	800	—	—	—	800
MSMA/DSMA	800	—	1000	—	—
Experimental and Misc. Herbicides					
Banvel, Probe Trifluralin, Sinbar, Sirmate, Triazine, Sub-Ureas etc.	800	—	—	—	800
Plant Growth Regulants					
Cycocel, Ethephnon, Maleic, Hydrazide, Alar Gibberellic acid	200	10	281	—	71
Rodenticides					
Zinc Phosphide/Warfarin/Coumafuryl/ Cynodust	300	516	—	—	—
Fumigants					
Al. Phosphide	1000	450	180	—	370
MB/EDB etc.	800	608	—	—	192
Nematocides					
Metham N. Sodium/Terracur/DBCP/ DDT/Telone etc.	100	—	50	—	50

INDUSTRIAL EXPLOSIVES

(Excluding Gun Powder, Detonators, Detonating Fuse and Safety Fuse)

Present Status

1.1. Industrial explosives are an essential input in mining of coal, metallic and non-metallic ores, limestone and in the building of roads, dams, canals, etc.

1.2. There are, at present, two units manufacturing industrial explosives in the country with an installed capacity of 50,000 tonnes per annum; 35,000 tonnes is for conventional nitro-glycerine based explosives and balance 15,000 tonnes for the modern slurry explosives based on ammonium nitrate. Additional capacity of 48,000 tonnes has been approved, out of this 33,000 tonnes is for slurry explosives and the balance 15,000 tonnes for conventional nitro-glycerine based explosives. In addition to this, proposals for a capacity of 84,000 tonnes are, at present, under examination; all of these are for slurry explosives.

1.3. The production of explosives during the last three years was as follows:

1973	32,645 tonnes
1974	38,306 tonnes
1975	45,329 tonnes

The utilisation of capacity is about 90%.

Future Scope

2.1. It is estimated that the demand for industrial explosives would rise to 85,000 tonnes by 1978-79. For producing this quantity, a capacity of 100,000 tonnes would be required. In future, the trend in the explosives industry would be more and more towards slurry explosives as opposed to nitro-glycerine based explosives.

2.2. In view of the energy crisis and the greater emphasis on the production of coal, the demand for explosives during the next ten years is expected to rise steeply as compared to the previous ten years. Coal production is expected to rise from the current 1,080 lakh tonnes per annum to 1,350 lakh tonnes by 1978-79 and may rise to 2500 lakh tonnes by 1985. It would therefore be desirable to aim for an installed capacity of 200,000 tonnes by 1985.

2.3. By and large, the raw materials required for manufacture of industrial explosives, ammonium nitrate, nitro-glycerine, nitro cellulose, aluminium powder and sodium nitrate are available within the country or are likely to become available during the Fifth Plan. It would perhaps be necessary to import some quantities of explosive-grade aluminium powder and a few other specialised chemicals; the incidence of imported raw

materials in explosives is, however, not likely to exceed 2%.

2.4. There is a significant technological gap in the field of industrial explosives, and proposals for foreign collaboration may be considered on merits.

2.5. Plant and equipment for slurry explosives is by and large available from within the country though this is not the case in respect of plant and equipment for nitro-glycerine based explosives. Investment per tonne of capacity for nitro-glycerine based explosives is also of a much higher order as compared to slurry explosives, and therefore, slurry explosives are preferred from technological and investment considerations.

MISCELLANEOUS CHEMICALS

INDUSTRIAL GASES

(Oxygen and Dissolved Acetylene Gas).

General

1. Oxygen and Acetylene are used for metal fabrication and metal cutting; the function of oxygen is to support combustion while acetylene is used as fuel gas. Other fuel gases, such as hydrogen, natural gas, butane, propane are also sometimes used as substitutes for acetylene. Oxygen is used in electric steel furnace for de-carbonisation and scrap melting; oxygen is also widely used for medicine and for breathing in high altitude flying. Some quantities of liquid oxygen are also used as industrial explosives.

OXYGEN GAS

Present Status

1.1. There are at present, 78 units with an installed capacity of 946.6 lakh cubic mtrs.; 14 of these units came into production during 1975. Additional capacity of about 1790 lakh cubic mtrs. is covered by letters of intent and registration.

1.2. The production of oxygen during the last three years was as follows:-

1973	607 lakh cubic mtrs.
1974	606 lakh cubic mtrs.
1975	601 lakh cubic mtrs.

Future Scope

2.1. The demand for oxygen has been re-assessed on the basis of a regional study, after taking into account the availability of steel, the likely pattern of growth of engineering industries and production of steel from electric furnaces. It is estimated that about 1300 lakh cubic mtrs of oxygen would be required by 1978-79, corresponding to an installed capacity of 1700 lakh cubic mtrs. Demand for oxygen being dependent on the growth of the engineering industries and the perform-

ance of electric arc furnace industry, there has lately been a reduction in demand for oxygen, especially in north India; the demand is, however, likely to pick up in the coming years. Having regard to projected demand and approved capacity, there is limited scope for creating additional capacity based on the following guidelines.

Guidelines No. 1

Application from entrepreneurs may be accepted for locations where there is no available projected capacity for industrial gases within a radius of 250 kms.

Guidelines No. 2

Application from entrepreneurs who have substantial captive requirements for industrial gases or who propose to recover the compressed bye-product oxygen available from fertilizer, vanaspati and other units.

2.2. Foreign collaboration is not considered necessary in this field; plant and equipment for the manufacture of oxygen are indigenously available. Gas cylinders are, however, required to be imported at present, though these are likely to be indigenously available from Bharat Pumps and Compressors Ltd., Naini, in the near future.

2.3. All existing and forthcoming oxygen plants are being encouraged to recover nitrogen as a bye-product, wherever demand exists; larger air separation plants are also encouraged to recover argon as a bye-product.

DISSOLVED ACETYLENE GAS

Present Status

1.1. There are, at present, 42 units producing dissolved acetylene gas with an installed capacity of 150 lakh cubic mtrs. per annum. An additional capacity of 211 lakh cubic mtrs. is covered by letters of intent; most of these approvals are integrated with approvals given for oxygen plants.

1.2. The production of dissolved acetylene gas during the last three years was as follows:

1973	63 lakh cubic mtrs.
1974	63 lakh cubic mtrs.
1975	71 lakh cubic mtrs.

Future Scope

2.1. It is estimated that the requirements of dissolved

acetylene gas by 1978-79 would be about 1/5th of oxygen. About 260 lakh cubic mtrs. of dissolved acetylene gas would be required by 1978-79 corresponding to an installed capacity of 340 lakh cubic mtrs.

2.2. Calcium carbide, the main raw material required for the production of dissolved acetylene gas, is available from indigenous sources.

2.3. Plant and equipment for production of dissolved acetylene gas is available indigenously. High pressure seamless steam cylinders for bottling and transporting dissolved acetylene gas in the dissolved form are imported at present, but these are likely to be available from Bharat Pumps and Compressors Ltd., Naini in the near future.

2.4. A statement showing the installed capacity for oxygen and dissolved acetylene gas industry in the various States and additional approved capacity in each State, is as under:

Statewise Status of Oxygen Industry as on 1.1.1976

State	(Capacity in lakh tonnes)			
	Capacity Installed		Additional Capacity Approved	
	No. of Units	Capacity	No. of Units	Capacity
1. Andhra Pradesh	5	40.22	5	30.60
2. Assam	2	6.12	2	20.00
3. Bihar	3	179.60	5	44.58
4. Chandigarh	—	—	2	10.00
5. Delhi	5	30.78	3	19.00
6. Gujarat	4	25.14	16	176.00
7. Goa, Daman & Diu	2	3.00	3	30.20
8. Haryana	4	22.40	13	115.00
9. Himachal Pradesh	—	—	1	10.00
10. Kerala	3	21.75	3	30.00
11. Karnataka	3	16.96	9	196.50
12. Maharashtra	11	153.22	23	249.70
13. Madhya Pradesh	3	12.90	16	170.00
14. Orissa	1	8.76	5	62.78
15. Punjab	4	27.75	10	62.28
16. Pondicherry	—	—	1	10.00
17. Rajasthan	2	7.16	5	32.50
18. Tamil Nadu	4	61.07	7	125.18
19. U.P.	13	88.61	23	210.30
20. West Bengal	9	241.14	14	183.20
Total	78	946.59	166	1787.82

**Statewise Status of dissolved Acetylene
Gas Industry as on 1.1.1976**

State	Capacity Installed		Additional Capacity Approved	
	No. of Units	Capacity	No. of Units	Capacity
1. Andhra Pradesh	4	9.74	4	8.50
2. Assam	2	2.14	2	4.00
3. Bihar	3	12.19	5	10.60
4. Delhi	1	4.08	2	3.00
5. Gujarat	3	6.84	10	22.68
6. Goa, Daman & Diu	—	—	3	4.90
7. Haryana	1	2.88	7	11.20
8. Kerala	1	2.38	3	6.00
9. Karnataka	2	4.97	9	25.30
10. Maharashtra	6	25.34	14	25.00
11. Madhya Pradesh	2	6.44	11	20.00
12. Orissa	1	3.75	2	3.27
13. Punjab	—	—	2	3.80
14. Pondicherry	—	—	1	2.00
15. Rajasthan	1	1.08	3	4.00
16. Tamil Nadu	3	11.45	4	13.20
17. U.P.	6	13.91	16	25.20
18. West Bengal	6	42.70	9	18.00
Total	42	150.39	107	210.65

SYNTHETIC CRYOLITE

Present Status

1.1. Synthetic cryolite and aluminium fluoride are essentially required in the electrolytic manufacture of primary aluminium. Small quantities of cryolite are also used by the glass and ceramic industries.

1.2. There are six units manufacturing synthetic cryolite with an installed capacity of 6990 tonnes per annum. Out of this, 3750 tonnes capacity is based on acid grade fluorspar and 3240 tonnes on fluorine recovered from phosphate rock. Additional capacity to the tune of 13,500 tonnes is covered under industrial licences/letters of intent/registration. Of this, a capacity of about 1650 tonnes per annum based on fluorine recovery is likely to materialise during 1976, thereby raising the total installed capacity to 8640 tonnes per annum.

1.3. The production of synthetic cryolite during the last three years was as follows:

1973	2872 tonnes
1974	4641 tonnes
1975	5100 tonnes

While the capacity utilisation in the plants based on

fluorspar is near optimum, the utilisation of capacity in plants based on fluorine recovery has been unsatisfactory on account of technological problems.

Future Scope

2.1. For production of 370,000 tonnes of aluminium (draft Fifth Plan target), 9250 tonnes of cryolite will be required. In addition to this, another 10,000 tonnes would be required for new cells in aluminium plants. There is scope for expansion in the production of cryolite based on fluorine recovery from phosphate rock, especially where large phosphoric acid plants are being set up for the manufacture of phosphate fertilizers.

2.2. It is estimated that it would be possible to recover 4500 to 5000 tonnes of cryolite as bye product from a phosphoric acid plant with a capacity of 100,000 tonnes. Since it is more economical to manufacture synthetic cryolite through recovery of fluorine values, further capacity for manufacture of acid grade fluorspar may not be encouraged.

3.3. No foreign collaboration is required for the manufacture of this item as know-how is available with the NRDC. Location of the plants would depend on the location of large phosphate fertiliser factories.

3.4. Equipment for fluorine-based plant is available mostly from indigenous sources.

ALUMINIUM FLUORIDE

Present Status

1.1. There are three units in production with an installed capacity of 5040 tonnes per annum. Additional capacity to the tune of 20,000 tonnes per annum is covered by letters of intent.

1.2. The production of aluminium fluoride during the last three years was as follows:

1973	Rs. 92.82 lakhs
1974	Rs. 83.76 lakhs
1975	Rs. 80.34 lakhs

1.3. Aluminium fluoride is also being imported to meet the shortfall in the indigenous availability. Import figures for the last three years are given below:-

1972-73	3518 tonnes	92.82 lakhs
1973-74	3729 tonnes	83.76 lakhs
1974-75	2370 tonnes	80.34 lakhs

Future Scope

2.1. For production of 370,000 tonnes of aluminium (which is the draft Fifth Plan target), 16,650 tonnes of aluminium fluoride will be required by 1978-79. There

is scope for further licensing of capacity for aluminium fluoride based on fluoride recovery from phosphate rock especially when large phosphoric-acid plants are set up to manufacture phosphate fertilisers.

2.2. It is estimated that about 5000 tonnes of aluminium fluoride can be recovered as bye-product from a phosphoric acid plant with a capacity of 100,000 tonnes. Since it is more economical to manufacture synthetic cryolite through recovery of fluoride values, further capacity for manufacture of acid grade fluospar may not be encouraged.

3.1. No foreign collaboration is necessary as the know-how (based on fluoride recovery) is available with the NRDC. Location of the plants would depend on the location of large phosphate-fertiliser factories.

3.2. Equipment for fluoride based plants is available in the country to a considerable extent.

CARBON BLACK

Present Status

1.1. Carbon black is one of the important raw materials used in the manufacture of rubber products such as, tyres, tubes, conveyors belts and a large number of other rubber goods. There are, at present, two units engaged in the manufacture of carbon black with an installed capacity of 71,700 tonnes per annum. Additional capacity to the extent of 103,600 tonnes has been licensed/approved (covered by letters of intent) and registered with the Directorate General of Technical Development. The total capacity approved, including installed capacity, is 175,300 tonnes.

1.2. The production of carbon black during the last 3 years was as under:

1973-74	59,699 tonnes
1974-75	48,242 tonnes
1975-76	50,000 tonnes

1.3. Certain grades of carbon black, the demand for which is very limited, and which are not being manufactured in the country, are being imported. The annual import is of the order of Rs. 60 lakhs. This item is also being exported. The export during the last three years was as under:

1972-73	3,787 tonnes	Rs. 62.60 lakhs
1973-74	8,174 tonnes	Rs. 159.54 lakhs
1974-75	3,821 tonnes	Rs. 114.20 lakhs

Future Scope

2.1. The Task Force on Rubber Products had made an estimate of the requirement of carbon black at 97,000 tonnes by the end of 1978-79. To achieve this production, Task Force had suggested creation of a capacity to the extent of 120,000 tonnes per annum by

1978-79. Against this, the present installed/licensed/approved capacity is 175,300 tonnes. As such, there is no scope for approving any additional capacity for this item.

2.2. The main raw material required for the manufacture of carbon black is aromatic feed stock. Availability of feed stock, which is a petroleum product, is limited. The total availability of feed stock during the next 5 years is considered to be just adequate to meet the requirement of the capacity likely to come into operation.

SYNTHETIC DETERGENTS

Present Status

1.1. There are 8 units engaged in the manufacture of synthetic detergents with an installed capacity of 1.45 lakh tonnes per annum. An additional capacity of 100,800 tonnes has been licensed. Letters of intent have been issued for a further capacity of 193,600 tonnes per annum.

1.2. Production of synthetic detergents during the last three years was as under:

1973	70,000 tonnes
1974	84,500 tonnes
1975	74,195 tonnes

1.3. Import of synthetic detergents is not permitted. Detergents are also being exported and the average annual exports for the last 3 years have been of the order of Rs. -90 lakhs.

Future Scope

2.1. Fifth Plan targets for the production of synthetic detergents is placed at 300,000 tonnes corresponding to a capacity of 350,000 tonnes per annum by 1978-79.

Having regard to the capacity which is likely to materialise from the schemes already approved, there is no scope for licensing of additional capacity in this field in the near future. The progress of the schemes under implementation will be watched during the year 1976-77 and the position will be reviewed at the end of the year.

FINE CHEMICALS

Present Status

1.1. Fine chemicals are chemicals of highest purity which include laboratory chemicals also. Laboratory chemicals (analytical grade, guaranteed reagent grade and electronic grade) are used by research laboratories for analytical and research purposes. The preparation of laboratory chemicals involving the process of purification only, requires technological inputs backed by

research, experience and skill. The total licensed/registered capacity for laboratory chemicals is 2756 tonnes per annum.

Future Scope

2.1. Laboratory chemicals include a large variety of items required mostly in limited quantities. Most of the national laboratories, I.I.Ts., other research institutions and electronic industry import their requirements of sophisticated laboratory reagents directly. Laboratory reagents are also being imported and marketed by some import houses (through STC). There is scope for further licensing of laboratory chemicals, particularly of sophisticated grades.

CALCIUM CARBIDE

Present Status

1.1. Calcium carbide is the primary raw material for generation of acetylene gas which is used in (oxy-acetylene) torches for cutting and welding of steel. Calcium carbide is also used for manufacture of organic chemicals and plastics (PVC).

1.2. At present, there are six units engaged in the manufacture of calcium carbide with an installed capacity of 88,550 tonnes per annum. The production of calcium carbide during 1974 was 70,000 tonnes. An additional capacity of 493,400 tonnes per annum is covered by industrial licences and letters of intent.

1.3. Small quantities of calcium carbide have been imported as indicated below:

1972-73	3809 tonnes	Rs. 36 lakhs
1973-74	2000 tonnes	Rs. 25 lakhs
1974-75	3849 tonnes	Rs. 119 lakhs

Future Scope

2.1. On the basis of the present estimates of requirements of calcium carbide, a capacity of 215,000 tonnes /annum will be required by 1978-79. Against this, the additional approved capacity (apart from the installed capacity, i.e. 88,550 tonnes per annum) is 493,400 tonnes per annum. Some of the schemes may not, however, materialise. The implementation of the project will, therefore, be watched before considering licensing of additional capacity.

2.2. Future production of organic chemicals and plastics may have to be based on acetylene derived from calcium carbide, because of the high prices of petroleum and its products in India. In that case, the requirements of calcium carbide will increase and will call for establishment of additional captive units for meeting the requirements of organic chemicals and plastics projects.

2.3. Now calcium-carbide plants, should, preferably be installed in locations which commands supplies of good quality lime-stone and abundant electrical power.

3.1. Foreign collaboration is not considered necessary in this field. Complete plant and machinery for manufacture of calcium carbide is not yet indigenously available.

3.2. High grade lime-stone, graphite electrodes, carbon electrode paste, premium grade and hard coke, charcoal, raw petroleum coke and a large supply of electrical energy are required for production of calcium carbide. Graphite electrodes are partly imported at present. Efforts are being made to increase the availability of all the raw materials in future.

POTASSIUM CHLORATE

Present Status

1.1. Potassium chlorate is primarily used in the manufacture of safety matches. It is also used in the manufacture of fire works and in the drug industry.

1.2. At present, there are four units engaged in the manufacture of potassium chlorate with an installed capacity of 8000 tonnes per annum. Additional capacity to the tune of 15,850 tonnes per annum is covered under letters of intent/industrial licences.

1.3. The production of potassium chlorate during the last three years was as follows:

1973	5485 tonnes
1974	5571 tonnes
1975	6300 tonnes

Future Scope

2.1. The demand for potassium chlorate is expected to be of the order of 12,000 tonnes by 1978-79. Although adequate capacity has been licensed, some of the approved schemes may not materialise. Progress of approved schemes will be watched before considering additional capacity.

2.2. The principal raw material used in the manufacture of potassium chlorate is pure grades of potassium chloride which is imported. Magnetite electrodes and/or graphite electrodes are also needed and these are partly imported.

SODIUM CHLORATE

Present Status

1.1. Sodium chlorate is used in the modern viscose yarn plants for bleaching. It is also used as a weed killer.

1.2. At present, there is only one unit engaged in the manufacture of sodium chlorate with a licensed capa-

city of 4000 tonnes per annum, out of which a capacity of only 1800 tonnes per annum has been installed. Additional capacity to the tune, of 14,180 tonnes per annum is covered under letters of intent and registration.

1.3. The production of sodium chlorate during the last three years was as follows:

1973	1486 tonnes
1974	1118 tonnes
1975	1279 tonnes

During the year 1974, production of sodium chlorate declined due to power cuts. The situation has improved with the better availability of power during 1975.

2.4. The principal raw material used in the manufacture of sodium chlorate is sodium chloride. Magnetite electrodes and/or graphite electrodes are also needed, which are partly imported. Electrical power is another major input.

Future Scope

2.1. The demand for sodium chlorate is expected to be of the order of 8000 to 10,000 tonnes per annum by 1978-79.

2.2. New units would be encouraged in areas where there is adequate availability of power.

2.3. Foreign collaboration is generally not permitted as technical know-how is available in the country.

FURFURAL

Present Status

1.1. The licensed capacity for furfural is 6,000 tonnes per annum. A further capacity of 52,000 tonnes per annum is covered by letters of intent. The entire capacity approved for furfural carries an export obligation equivalent to 80% of the output. A pilot plant has been set up to produce furfural in small quantities.

1.2. Bagasse or other agricultural wastes, e.g., rice husk, corn cobs are the major raw materials used in the manufacture of furfural.

Future Scope

2.1. The demand for furfural is assessed as 3,000 tonnes per annum by the end of the Fifth Plan period. This would met, when the capacity already licensed /approved materialises.

Technology

3.1. Indigenous technology is not available and hence foreign collaboration in this field can be considered on merits. Recovery of acetic acid as a by-product and the utilisation of the residual bagasse as a fuel in the boiler are to be ensured.

ACETIC ANHYDRIDE

Present Status

1.1. Acetic anhydride is required in the manufacture of drug intermediates, dyes intermediates and for other general organic synthesis requiring acetylation. The present installed capacity is about 8,500 tonnes per annum out of which 7700 tonnes per annum is for captive consumption. Further letters of intent have been issued for 5200 tonnes per annum.

Future Scope

2.1. The Fifth Plan demand has been estimated to be 3,000 tonnes per annum. If the schemes for which letters of intent have been issued materialise, there would be no scope for setting up additional capacity for acetic anhydride.

FORMALDEHYDE

Present Status

1.1. The total licensed and registered capacity for formaldehyde is 139,800 tonnes, out of which 102,300 tonnes has been installed.

1.2. The production of formaldehyde during the last two years was as under:

1974	33,600 tonnes
1975	25,000 tonnes

Future Scope

2.1. The demand for formaldehyde is likely to reach a level of 75,000 tonnes per annum by the end of the Fifth Plan period. Having regard to the installed and the approved capacities, there is no scope for creating additional capacity for this item during 1976-77.

MELAMINE

Present Status

1.1. Melamine is an important raw material for the manufacture of melamine formaldehyde resins. There is no unit manufacturing melamine at present. Four letters of intent have been issued with a capacity of 5000 tonnes per annum each, based on urea. This should ideally be taken up by urea manufacturers to make it economic as otherwise the off-gases cannot be profitably utilised. The alternate route for its manufacture from dicyandiamide is uneconomic.

Future Scope

2.1. In view of the approved capacity in this industry, there is no scope for further licensin

ACETYLENE BLACK

Present Status

1.1. There is one unit with a licensed/installed capacity of 900 tonnes producing acetylene black at present. Additional capacity covered by letters of intent is 8000 tonnes per annum.

1.2. The production of acetylene black during 1974 and 1975 was about 500 tonnes per annum.

Future Scope

2.1. The demand for acetylene black is likely to rise to 5000 tonnes per annum toward the end of the Fifth Plan. In case the capacity of 8000 tonnes covered by letters of intent materialises, it would take care of the assessed demand. Since the source of acetylene in all these cases is calcium carbide, it is advisable to have captive calcium carbide plants for making the units economically viable.

Technology

3.1. Indigenous technology is not available and hence proposals for foreign collaboration can be considered on merits.

PENTAERYTHRITOL

Present Status

1.1. The present licensed capacity is 2400 tonnes per annum and the installed capacity is 1800 tonnes per annum. The production during 1975 was 200 tonnes, whereas earlier the production was of the order of 700 tonnes per annum.

Future Scope

2.1. The demand for pentaerythritol is likely to reach a level of 5,000 to 6,000 tonnes per annum by the end of Fifth Plan. A further capacity has been approved for 9100 tonnes per annum. In light of the already approved capacity, there is no scope for additional capacity for this item.

CATALYSTS

General

Catalysts are fundamental to the technology of cracking, hydro-cracking and platinum catalytic reforming of naphthas in refineries; polymerisation reactions in the manufacture of polyolefines, polymers and resins for plastics and man-made fibres, synthetic rubbers, petro-chemicals; production of hydrogen and synthesis gas from natural gas, naphthas, heavy stock and coal; synthesis of ammonia and methanol; purification of gas streams; hydrogenation of fats and oils; produc-

tion of phthalic anhydride, maleic anhydride; oxidation of ammonia to nitric acid, oxidation of sulphur dioxide to sulphur trioxide, in the manufacture of sulphuric acid. For self-reliant development in the chemical industries, it is essential to develop the catalyst industry at a much faster rate in the coming years. Simultaneously with the development of catalysts, it is essential to take steps to develop the production of various types of catalyst carriers and supports. A catalyst carrier or support must provide access to the active catalytic material, must have adequate abrasion resistance crushing strength, chemical inertness, thermal stability and good heat conductivity and must also be stable under the conditions of use. Some of the important catalytic carriers and supports include silica gel, colloidal silica, diatomaceous earth, activated carbon, alumina hydrates, activated alumina, molecular sieve zeolites and ceramic and refractory spheres, cylinders, granules and powders.

Present Status

1.1. There are, at present, 7 units engaged in the manufacture of catalysts for nitrogenous fertilizers, hydrotreating and purification of gas streams, sulphuric acid, nitric acid and vegetable oil hydrogenation industry. The installed capacity of various types of catalysts are given below:

1. Nitrogenous fertilizer catalysts	2,990 tonnes
2. Vanadium pentoxide catalysts for sulphuric acid.	350 kgs.
3. Platinum, rhodium gauze for nitric acid	540 kgs.
4. Platinum, palladium, rhodium, salts and catalysts	380 kgs.
5. Vegetable oil hydrogenation catalysts	896 kgs.

1.2. The production of various types of catalysts during the last three years was as follows:

	<i>Production (tonnes)</i>		
	1973	1974	1975
A. Fertilizer catalysts			
a) H.T. conversion catalyst	681.0	540.4	632.0
b) L.T. co-conversion catalyst	254.4	428.7	360.4
C) Zinc oxide desulphurisation catalyst	202.2	54.7	71.5
d) Naptha/hydrocarbons craking catalyst	54.2	67.9	28.3
e) Methanation catalyst	39.3	45.0	43.2
f) Ammonia synthesis catalyst	30.9	184.3	42.1
	126.0	132.0	1177.4

B. Vanadium pentoxide catalysts	413.4	237.6	352
C. Platinum, rhodium gauze for nitric acid	269.796	282.452	300
D. Platinum, palladium, rhodium, salts and catalysts	244.201	261.701	270
E. Vegetable oil hydrogenation	447.0	555.2	546.4

1.3. The raw materials required by the catalyst industry are mainly nickel, copper, zinc, cobalt, platinum, rhodium, palladium, silver, beneficiated magnetite ore, molybdenum tri-oxide, special grade alumina and activated alumina and graphite and activated carbon; whereas copper and zinc are partially indigenous other raw materials are required to be imported.

1.4. Considerable quantities of specialised catalysts for the petroleum refineries, petro-chemical industry and plastic industry and some of the catalysts for the nitrogenous fertilizer industry, such as primary reformer are still being imported as would be clear from the import data given below:

Year	Platinum/Palladium catalysts on activated carbon (Rs. lakhs)	Others not specified	Total
1971-72	24.49	82.64	107.13
1972-73	5.50	82.75	88.24
1973-74	4.66	174.34	179.00
1974-75	2.88	200.57	209.44

1.5. Plant and equipment for manufacture of catalysts is available in the country to a considerable extent but specialised equipment, instruments and research and development equipment required for an efficient catalyst manufacturing unit would have to be imported. Technology for manufacture of some of the catalysts is available within the country, specially from the Indian Institute of Petroleum, but schemes for foreign collaboration in the field of catalyst manufacture may be considered on merits.

Future Scope

2.1. It has been the experience of developed countries that the development of catalyst industry follows industrial development; India is now at a stage of development in chemical industries which calls for greater attention to the development of catalyst industry. This is essential for achieving self-reliance in the field of vital chemical industries, such as fertilizers, petro-chemicals, refineries, polymers etc. At present catalysts usually form an integral part of a turn key project in fertilizer industries, petro-chemical industry,

plastics and polymer industry as more often than not the technological package provided by the collaborator includes catalysts as an essential constituent of the know-how package. For the rapid development of catalyst industry it is essential that turn key chemical projects should normally take into account the indigenously available catalysts and the capacity to develop catalysts available within the country and not accept specified catalysts as part of the know-how technology package. Given the opportunity it would be possible for catalyst manufacturers in the country to design and develop suitable catalysts for the imported technology.

2.2. As a step towards self-reliance in this field, a scheme has been recently approved for manufacture of 900 tonnes of molecular sieves (Type A, type X, type Y), special grade and alumina products, beta and gamma type—1050 tonnes and silica alumina based catalysts and catalyst carriers—300 tonnes. Pilot plant production of molecular sieves has already been taken in hand and some quantities of special grade alumina and activated alumina are also now being manufactured. A scheme for manufacture of 300 tonnes of activated carbon of the type required by the catalyst industry has also been approved.

HYDROCYANIC ACID, CYANIDES AND COMPLEX CYANIDES

Present Status

1.1. Cyanides are required in the manufacture of heat treatment salts, electroplating, extraction of gold and silver from ores, in the floatation of ores in metallurgical industries and in the manufacture of intermediates for pharmaceuticals, dyes, plastics and other organic chemicals.

1.2. There is no unit at present manufacturing cyanides in the country; the entire requirements are met by imports. Two units have been approved and one of these is likely to materialise in the next two years. The approved capacities are:

Hydrocyanic acid	2,400 tonnes per annum
Sodium cyanide and cyanides salts	4,500 tonnes per annum
Complex cyanides	1,000 tonnes per annum

While one of the units is proposed to be set up on the basis of bye-product hydrocyanic acid available from IPCL's acrylonitrile plant, the other unit plans to set up its own hydrocyanic acid capacity with foreign collaboration.

1.3. The main raw materials required in the manufacture of hydrocyanic acid and other cyanides are natural gas, ammonia, sulphuric acid, phosphoric acid

and caustic soda. Hydrocyanic acid is also a by-product of acrylonitrile manufacture.

1.3. The imports of various types of cyanides in the country during the last three years were as follows:

1972-73	3,032 tonnes	Rs. 102.6 lakhs
1973-74	1,971 tonnes	Rs. 76.3 lakhs
1974-75	1,921 tonnes	Rs. 121.51 lakhs

Future Scope

2.1. Hydrocyanic acid and alkali metal cyanides and complex cyanides are an important input in various industries and it is anticipated that the future demand for these would rise to about 5,000 tonnes per annum by 1978-79. Proposals for new schemes would be considered on merits.

2.2. As technology for manufacture of cyanides is not available indigenously, proposals for foreign collaboration may be considered on merits.

PHOSPHOROUS

Present Status

1.1. Two units are engaged in the manufacture of white/yellow phosphorous with a total installed capacity of 7,500 tonnes per year. One of the units has expanded its capacity from 2500 to 5000 tonnes per year very recently. In addition, five schemes with a total capacity of 12,800 tonnes per year of white/yellow phosphorous have been approved. It is anticipated that the total installed capacity will be 13,500 tonnes per year by 1978-79.

1.2. At present, two units with an installed capacity of 900 tonnes per year of red phosphorous are in production. In addition, two more schemes have been approved for a capacity of 800 tonnes per year.

1.3. The production of white/yellow phosphorous and red phosphorous during the last three years was as follows:

Year	White/ Yellow Phosphorous	Red Phosphorous
1973	1,542 tonnes	326 tonnes
1974	2,127 tonnes	263 tonnes
1975	2,733 tonnes	507 tonnes

The import of the two varieties of phosphorous during the last three years was as under:

Imports

White/ Yellow Phosphorous

1972-73	74.1 tonnes	Rs. 3.62 lakhs
1973-74	56.8 tonnes	Rs. 3.6 lakhs
1974-75	244.7 tonnes	Rs. 35.0 lakhs

Red Phosphorous

1972-73	237.2 tonnes	Rs. 21.21 lakhs
1973-74	62.0 tonnes	Rs. 5.0 lakhs
1974-75	28.6 tonnes	Rs. 5.5 lakhs

While there is no export of white/yellow phosphorous, small quantities of red phosphorous are being exported. In 1974-75, five tonnes were exported at a value of Rs. 1.84 lakhs.

Future Scope

2.1. It has been estimated that by 1978-79, the indigenous requirements of white phosphorous would be 8000/8500 tonnes requiring an installed capacity of about 10,000 tonnes per year. Similarly the requirements of red phosphorous has been estimated at about 950/1000 tonnes per year requiring an installed capacity of about 1,200 tonnes per year.

2.2. From the demand pattern and the growth in the industry, there does not appear to be much scope for creation of new plants, but it may be desirable to expand some of the existing plants to achieve economies of large scale production.

PHTHALIC ANHYDRIDE

Present Status

1.1. The present installed capacity is of the order of 27,300 tonnes per annum. An additional capacity of 30,000 tonnes per annum has been approved. The production during 1975 was 5,660 tonnes.

Future Scope

2.1. The demand for phthalic anhydride at the end of the Fifth Plan had been assessed at 45,000 tonnes per annum. In view of the approved capacity, there is no further scope for additional capacity of phthalic anhydride during the Fifth Plan period.

ACTIVATED CARBONS

Present Status

1.1. Activated carbon is namely used as a catalyst base or for removal of colour, taste and odour in the manufacture of edible oils, fats and foodstuffs, pharmaceuticals and for recovery and reclamation of various solvents. Activated carbon is generally manufactured from wood, coconut sheels and bones; lignite and pulp mill waste is also occasionally used.

1.2. There are three units with an installed capacity of 3,650 tonnes per annum. Additional capacity of 4,430 tonnes per annum has been approved.

1.3. The production of activated carbon during the

last three years is given below, which was mainly of specifications required for removal of colour and odour from oils, fats, etc.

1973	1,249 tonnes
1974	1,423 tonnes
1975	1,255 tonnes

Vapour phase, solvent recovery and catalyst base activated carbons are not produced in the country.

1.4. Imports of activated carbons during the last three years were as follows:

1971-72	95 tonnes	Rs. 9.15 lakhs
1972-73	134 tonnes	Rs. 10.13 lakhs
1973-74	170 tonnes	Rs. 22.16 lakhs

Future Scope

2.1. The demand for activated carbon is expected to be of the order of 2,000 tonnes by 1978-79 with the anticipated growth of catalysts, drugs and pharmaceuticals and food industries, etc.

2.2. While substantial capacity has been approved for the manufacture of de-colourising activated carbons, scope exists for creating additional capacity for manufacture of vapour phase absorbents, activated carbons and catalyst support activated carbons.

2.3. The Council of Scientific and Industrial Research has developed know-how for manufacture of de-colourising and vapour phase activated carbons. Plant and equipment for manufacture of activated carbons are available indigenously.

2.4. Considerable scope exists for activated carbon manufactured from bones.

DRY CELL GRADES OF MANGANESE DIOXIDE ELECTRICAL AND CHEMICAL (EMD AND CMD)

General

In a dry cell, manganese dioxide is of fundamental importance as it determines the ampere-hour capacity of a cell and its ability to deliver current under load. Battery-grade manganese dioxide covers a series of oxides of four-valent manganese, the individual oxides having different crystal structures and degrees of hydration and as such different chemical activity. Manganese dioxide is used in dry cells as natural ore after sorting, washing and concentrating; as chemically activated manganese dioxide (CMD) prepared by roasting natural ore and treating with acid and as electrolytic manganese dioxide, (EMD) the product of anodic oxidation of divalent manganese.

Present Status

1.1. Usually a mixture of electrolytic manganese dioxide, imported and indigenous ore concentrate, are used as constituents of the de-polariser mixture in dry cells. The demand for various types of manganese dioxides therefore depends on the growth and development of the dry cell industry.

1.2. There is one unit at present with an installed capacity of 2,500 tonnes; an additional capacity of 33,000 tonnes per annum of EMD and 11,000 tonnes per annum of CMD has been approved.

1.3. The production of electrolytic manganese dioxide during the last three years was as follows:

1973	1,479 tonnes
1974	2,230 tonnes
1975	702 tonnes

Production during 1975 was low because the only factory was closed down for a period of six months.

1.4. Imports of manganese dioxide and milled manganese ore and concentrates for dry cell battery are indicated below separately:

	<i>Manganese Oxide</i>		<i>Manganese ore and concentrates milled for dry cell primary battery</i>	
	<i>tonnes</i>	<i>Rs. lakhs</i>	<i>tonnes</i>	<i>Rs. lakhs</i>
1972-73	158.4	5.71	5,298	32.42
1973-74	389.0	16.39	4,123	25.39
1974-75	32.49	1.90	2,776	36.02

Future Scope

2.1. The demand for various grades of manganese dioxide is closely linked with the growth of dry cell industry. The present installed capacity for dry cells is 129 crore nos. Production during 1975 was only 52 crore nos. Production of about 130 crore nos. is expected by 1978-79. About 20-25 tonnes of de-polariser mixture is required for 10 lakh dry cells; out of this 3 to 6 tonnes is electrolytic manganese dioxide and about 9 tonnes can be made up of chemically activated manganese dioxide or manganese ore concentrates; the balance being other constituents. The ultimate ratios are determined by the type of dry cell. The requirements of electrolytic manganese dioxide by 1978-79 is therefore likely to be about 6,000 tonnes; a similar quantity of CMD would also be required. As sufficient capacity for electrolytic manganese dioxide, chemically activated manganese dioxide has already been approved, there is no need to encourage additional capacity unless the capacity is meant for export.

2.2. There is considerable export possibility in this industry as the existing unit exported electrolytic manganese dioxide to the tune of Rs. 40 lakhs during 1974.

India is rich in manganese ore and is therefore favourably placed for exports to neighbouring countries.

Technology

2.3. Foreign collaboration is not considered necessary as technical know-how for manufacture of cell grade manganese dioxide has been developed by the Council of Scientific and Industrial Research and which is available through National Research Development Corporation.

2.4. Plant and equipment for manufacture of cell grade manganese dioxide is available from indigenous sources.

SILICONES

Present Status

1.1. Silicones are organo silicon compounds finding a wide range of applications in many industries like rubber as mould release agents, textiles as finishing agent, electrical insulations, insulating varnishes, lubricating oils and greases, pharmaceuticals, antifoaming agents, etc.

1.2. Introduction of silicones in India is comparatively of recent origin. Its large scale demand is yet to develop. Currently, one unit having a licensed capacity of 700 tonnes per year is manufacturing a range of silicone products from imported intermediates—organo chlorosilanes. Due to various constraints in the matter of importing this hazardous intermediate, the firm has so far been able to utilise only a part of their capacity. As a result, in order to meet the gap between the demand and the local production, some imports are allowed. These include newer varieties of silicones not produced indigenously as well as the types produced indigenously, but not meeting the full demand.

1.3. In addition, a number of smallscale units are also manufacturing silicone emulsions from imported silicone oils/fluids for which no precise information is available. The past imports were of the following order:

1972-73	267 tonnes	Rs. 22.59 lakhs
1973-74	194 tonnes	Rs. 21.18 lakhs
1974-75	138 tonnes	Rs. 25.15 lakhs

Future Scope

2.1. The current demand for silicones is estimated between 500 to 600 tonnes per year. It is expected that with the development of various consuming industries and, particularly, because of the versatility of this item, the demand, would go up substantially in the near future. In fact, in case manufacture of these items from

basic raw materials like silicone metal/ferro silicone, methyl alcohol, hydrochloric acid etc, is undertaken, the annual demand might go up to about 1,500 tonnes in a course of 5 to 6 years.

2.2. In view of this, the existing manufacturer has been permitted to set up facilities for the manufacture of the intermediates which they have been importing. Two more firms having an aggregate capacity of 1,200 tonnes per year were granted letters of intent for the manufacture of silicone products from the basic raw materials. However, the progress made by these two units in the matter of implementation of the projects has not so far been satisfactory. In the event of these schemes not materialising, there will be scope for entertaining one or two schemes in this field so as to establish production from the basic stage.

2.3. It is to be noted that any schemes for the manufacture of silicone products from the basic raw materials having less than 3,000 tonnes per year capacity is not likely to be economically viable. Such a project may require an investment of around Rs. 3 crores of which around Rs. 2.5 crores would be on capital goods. As the demand at the moment is not sufficient to sustain such a large capacity, it may be necessary to export a substantial part of the production for economic operation of the plant.

2.4. The need of foreign collaboration will be determined on the merits of each case.

METALLIC POWDERS

General

1.1. Manufacture of metallic powders is essentially based upon non-ferrous metals like, aluminium, zinc, copper, tin magnesium etc. powders of aluminium, zinc and bronze are mainly used in various chemical industries. Depending upon the type and availability of the related non-ferrous metals, manufacture of such powders may involve high import requirement.

1.2. The process of manufacture presently adapted is atomisation of molten metals in an inert atmosphere.

1.3. Technical know-how for the manufacture of different metal powders is available with the existing units operating in the organised sector. The National Metallurgical Laboratory, Jamshedpur has also developed manufacturing process for different metallic powders.

1.4. The required plant and equipment can be fabricated locally.

ALUMINIUM POWDER/PASTE

Present Status

1.1. Aluminium powder/paste finds application in

the manufacture of aluminium paints and printing inks. Pyrotechnic aluminium powder/dried filter cake is used in the production of fire works and explosives. Atomised aluminium powder is consumed in the manufacture of explosives, high density polythene, ferro-alloys, welding electrodes, brakelinings, etc.

1.2. At present, there are three firms in the organised sector with an annual installed capacity of 6,200 tonnes. Their production during the years 1973, 1974 and 1975 was 1536, 2231 and 1876 tonnes respectively.

1.3. Under the existing policy, there is provision for import of pyrotechnic aluminium powder of explosives grade for the manufacture of industrial explosives only. Existing units have since been successful in establishing production of this grade, as well.

1.4. As the imports are insignificant, indigenous production has been considered as the internal demand. The principal raw materials required, namely, aluminium metal, mineral terpentine and stearic acid, are available from indigenous sources.

Future Scope

2.1. The existing installed capacity is adequate to take care of present requirement and likely increased demand by the end of Fifth Five Year Plan

ZINC POWDER (DUST)

Present Status

1.1. Zinc dust is used extensively in various chemical industries as well as for protective coatings. In chemical industries, it is used as a reducing agent. In this respect, sodium hydrosulphite industry is one of the largest consumers of this item. It is also used as an ingredient in pyrotechnic industry. It is also used in metallurgical industry as a precipitating agent in gold mining and in electrogalvanising.

1.2. There are, at present, four firms with an annual registered/installed capacity of 5,230 tonnes. In addition, one more unit has been registered for a capacity of 2,000 tonnes per year, which is under implementation. Two of the units are capable of manufacturing zinc dust conforming to the specifications required by sodium hydrosulphite industry, to the extent of 5,000 tonnes per annum.

1.3. Production of zinc dust by existing units during the last three years has been as under:

1973	1,729 tonnes
1974	1,333 tonnes
1975	910 tonnes

1.4. Present production is based on virgin zinc metal which is still partly imported. On an average, about 110

per cent of metal is needed in terms of weight. Required plant/machinery can be fabricated indigenously.

1.5. Import of zinc dust by sodium hydrosulphite industry has been banned. Present requirement of zinc dust by principal consuming industry (sodium hydrosulphite) is of the order of 4000/5000 tonnes per annum.

Future Scope

2.1. Existing installed capacity of the units for the manufacture of zinc dust is quite adequate to meet the present as well as increased demand for this item during the next five years or so. Fresh proposals based on the use of indigenous galvanisers' zinc dross, instead of virgin zinc metal may be considered favourably; as this would lead to elimination of foreign exchange expenditure on the import of zinc metal and at the same time provide for better utilisation of zinc dross.

BRONZE POWDER

Present Status

1.1. Bronze Powders of varying gold shines are consumed in the manufacture of decorative paints and printing inks. These are used by art packaging, ceramics, glass and bangles and such other industries.

1.2. At present, there is only one unit in the organised sector for the manufacture of bronze powder having an annual capacity of 300 tonnes. This unit has gone into production recently. Another approved scheme for the manufacture of 360 tonnes per year is under implementation. In addition, there is a firm in the small scale sector having a capacity of 400 tonnes per year.

1.3. Principal raw materials needed in the manufacture of bronze powder are, zinc copper and tin metals.

1.4. The principal unit operations in the manufacture of bronze powder are (a) granulation, (b) milling and (c) polishing. The National Metallurgical Laboratory, Jamshedpur, is reported to have perfected the technology upto atomisation stage and the work on balance technology is under progress. One of the firms in the organised sector has established production of this item through their own Research and Development.

Future Scope

2.1. It is estimated that the present requirement of bronze powder by various consuming industries would be of the order of 400 tonnes per annum which may increase to 660 tonnes by the end of the Fifth Five Year Plan period. Existing installed capacity along with the capacity under implementation will be adequate to take care of the likely demand by 1978-79.

TITANIUM DIOXIDE

Present Status

1.1. Titanium dioxide is a versatile industrial white

pigment finding application in a number of industries like paints, varnishes and laquers, paper, rubber, coated fabrics and textiles, printing inks, ceramics etc. Due to its superior pigmentary properties it has replaced the use of other white pigments like zinc oxide and white lead, manufacture of which is based upon imported/scarcce metals like zinc and lead. The major raw material ilmenite, is available in the country.

1.2. Depending on the molecular structure, titanium dioxide, is in two grades - (a) anatase and (b) rutile. White anatase grade is used in the coating preparations mainly for interior surfaces, rutile is used in the preparations meant for exterior applications.

1.3. M/s Travencore Titanium Products Ltd., are the only manufacturers of titanium dioxide having an annual installed capacity of 24,000 tonnes. So long, their production related to manufacture of anatase grade also. Recently they have started trial production of rutile grade also. Letters of intent have been granted for an additional total annual capacity of 63,000 tonnes.

1.4. Production of this pigment during the last three years was as under:

	Anatase	Rutile
1973	4,368 tonnes	
1974	7,611 tonnes	
1975	4,999 tonnes	377 tonnes

1.5. In view of the in-adequate production of anatase grade of titanium dioxide as compared to the demand, some imports of this grade had to be allowed in the past along with rutile grade of titanium dioxide. Past imports were as follows:

2.3. The basic raw material required in the manufacture of this pigment is ilmenite ore, available in abundance, mainly along the sea coasts between Cochin, and Trivandrum, West Coast and Ratnagiri (Maharashtra). Extraction and distribution of ilmenite is looked after by the Department of Atomic Energy. It is, therefore, necessary that the entrepreneurs consult the Department of Atomic Energy for the supply of ilmenite

2.4. Production of titanium dioxide in the country has so far been based on sulphate process. This process has created pollution problems in countries like UK, USA. and Japan. Further expansion in this industry is, therefore, being encouraged based upon chloride process. This process while eliminating the use of imported sulphur will also lead to better utilisation of chlorine available from the electrolytic caustic soda industry.

2.5. Technical know-how for the manufacture of titanium tetrachloride, the intermediate product of titanium dioxide *via* chloride route, has been developed indigenously in the National Chemical Laboratory, Poona and at BARC, Hyderabad. This process, however, needs to be established on commercial basis. Proposals for foreign technical collaboration from entrepreneurs may be considered on merits.

2.6. There is a good demand for titanium dioxide in the export market. Existing installed capacity as well as that likely to materialise in future is adequate to take care of the internal requirements.

Imports during

Item	1972-73		1973-74		1974-75	
	Qty. (Tonnes)	Value (Rs. lakhs)	Qty.	Value	Qty.	Value
Titanium Dioxide						
Anatase	1480.5	53.94	2043.0	114.20	424.0	42.11
Rutile	3728.5	137.85	7518.0	416.12	5823.1	620.50
Others	183.6	34.93	175.0	16.04	50.6	5.23

Future Scope

2.1. The present demand for this pigment has been estimated at around 18,000 tonnes per year by the end of the Fifth Plan period.

2.2. Titanium dioxide is a capital intensive industry. An integrated project with a capacity of 60 tonnes per day would require an investment of about Rs.26 crores on plant and machinery.

PAINTS AND VARNISHES (including N.C. Lacquers)

Present Status

1.1. At present, there are 17 units in the organised sector engaged in the manufacture of paints and varnishes with an annual installed capacity of 106,515 tonnes per year. In addition, a capacity of 1350 tonnes

per year has been licensed and a further capacity of 3150 tonnes per year is covered under letters of intent.

1.2. The production of paints, enamels and varnishes during the last three years was as under:

1973-74	70,449 tonnes
1974-75	58,485 tonnes
1975-76	63,000 tonnes

Overall utilisation of capacity has been of the order of 70 per cent.

1.3. Till 1974-75, import of finished paints and varnishes was allowed for export production. However, since 1975-76, imports have been banned. Import figures for the past three years were as follows:

1972-73	297 tonnes	Rs. 62.25 lakhs
1973-74	390 tonnes	Rs. 72.78 lakhs
1974-75	376 tonnes	Rs. 108.04 lakhs

1.4. Exports during the past three years were as follows:

1972-73	6,808 tonnes	Rs. 360.60 lakhs
1973-74	3,964 tonnes	Rs. 221.79 lakhs
1974-75	7,596 tonnes	Rs. 788.50 lakhs

Future Scope

2.1. Based upon the growth rate envisaged in the industries, it was estimated that the demand for various surface coating agents would grow up to 220,000 tonnes by the end of the Fifth Plan period. To achieve this, a capacity of 250,000 tonnes per year needs to be created. It is reported that there are as many as 900 paint units operating in the small scale sector and the share of these

units in the total production of paints, varnishes and enamels is around 50%. Assuming that the percentage share of the small scale units in the future will remain the same, there would be scope for creating an additional capacity to the extent of around 70,000 tonnes in the organised sector.

2.2. The following items of paint have exclusively been reserved for development in the small scale sector.

Paints and Varnishes

Dry distemper, red lead, lead oxide, aluminium paints, bituminous paints to I.S. specifications, wagon blacks, graphite paints and all paste paints.

2.3. Principal raw materials are different pigments (inorganic and organic), synthetic resins and industrial solvents. Most of these are available locally. The current import content is less than 10 per cent of the ex-factory value of production.

2.4. Paint industry is already well established in the country and no foreign collaboration is considered necessary. However, of late, painting techniques have been developed in some of the advance countries based on the use of powder coatings (i.e. solvent less coatings) as well as those for airless spray paints, electrostatic spraying, etc. Technology for the manufacture of such types of newly developed coatings is not yet available in the country and hence, foreign collaboration proposals may be considered on merits in these specific fields.

2.5. The operations involved in the manufacture of paints, enamels and varnishes are mainly grinding and mixing. Most of the related machinery like ball mills, roller mills, sand mills, etc. are available locally. Only certain high speed dispersion equipment needs to be imported.

DYE-STUFFS

DYE-STUFFS INDUSTRY

Present Status

1.1. Dyestuffs of various groups (azo dyes, basic dyes, disperse dyes, reactive dyes, acrylic fibre dyes, vat dyes, sulphur dyes, naphthols, fast colour based and optical whitening agents and organic pigments) are being manufactured in the country in the organised sector (26 units) and in the small scale sector.

1.2. The licensed capacity for dye stuffs is 22,806 tonnes and a further capacity of 5532 tonnes per annum is covered by letters of intent. The production of dyestuffs in 1975 was 14,537 tonnes as against the installed capacity of 21,100 tonnes. There is a good potential for exports of dyestuffs, and to some extent intermediates. The total value of exports during 1974-75 was Rs. 1384 lakhs and imports during this period were about Rs. 318 lakhs.

Future Scope

2.1. The capacity target for dyestuffs by the end of Fifth Plan period is 30,000 tonnes per annum. Manufacture of basic and azo dyes is reserved for the small scale sector. There is scope for creating additional capacity for dyestuffs in the areas of disperse dyes, naphthols, fast colour bases, organic pigments, optical whitening agents, sulphur dyes and vat dyes together with their intermediates. New proposals should preferably be based on starting from basic chemicals rather than from secondary or penultimate intermediates. Creation of capacity for dye intermediates would also be encouraged, especially where the intermediates are to be supplied to non-associated consumers and small scale dye manufacturers.

2.2. Foreign collaboration would be permitted for manufacture of intermediates and dyestuffs which involve sophisticated technology.

DRUGS AND PHARMACEUTICALS

Introduction

1.1. The drugs and pharmaceuticals industry has a particularly strong technological bias and requires the input of research and development on a continuous basis. The build up of resistance in the human system against certain drugs through their prolonged usage renders them ineffective and the need to discover new drugs is, therefore, a continuous challenge to the industry. The Research and Development programme, therefore, has a special place in the development of this industry.

1.2. Although considerable progress has been made since the early fifties in the indigenous production of bulk drugs as well as the finished pharmaceuticals, the attainment of self sufficiency in the field of essential and

life saving drugs would call for greater efforts during the Fifth Plan Period.

Present Status

2.1. Drugs and Pharmaceuticals can be grouped into several broad categories like antibiotics, synthetic chemo-therapeutics, anti-tubercular, anti-malarials, amoebicidals, analgesics, hormones, vitamins, sulpha drugs etc., phytochemicals, glandular and biological products. There are 119 units in the organised sector and about 2400 units in the small scale sector engaged in the manufacture of drugs. The position in regard to the capacity covered by letters of intent and production in the various groups of drugs in the organised sector is as follows:

Name of the group	Unit	Capacity		Additional capacity covered by letters of intent	Production of important drugs in each category	
		Licensed	Installed		1974	1975
1	2	3	4	5	6	7
1. Antibiotics	Tonnes	915	815	185	624.71	680
2. Anti-Tubercular	Tonnes	1264	1137	931	577.67	600
3. Antidiabetics						
i) Oral	Tonnes	87.46	87.46	95.2	81.93	30
ii) Insulin MU	MU	1500	1500	—	657.38	650
4. Analgesics & Antipyretics	Tonnes	3288.68	2958	2528	1364.92	1500
5. Anti-malarials (Synthetics)	Tonnes	83	83	318	36.64	30
6. Anti-dysentery	Tonnes	567.3	467	217.7	168.16	160
7. Hormones & intermediates	Kgs.	6881.7	6881.7	—	5257.43	6000
8. Vitamins	Tonnes	769.59	769.59	2308	404.96	350
9. Sulpha drugs	Tonnes	2115	2093.1	830	1072.98	1200
10. Anti Leprotic Drugs	Tonnes	17.7	17.7	8.1	4.89	9

2.2. A number of drugs which are not produced indigenously or where the internal production fall short of demand, are being imported to meet the require-

ments of the country. The details of the drugs imported during the last 2 years are indicated below :-

1. Antibiotics	192.25	tonnes	242.00	tonnes
2. Anti-tubercular	3.56	tonnes	14.306	tonnes
3. Anti-diabetic	5.74	tonnes	5.56	tonnes
(i) Oral	150.0026	M.U.		Nil
(ii) Insulin	49.20	tonnes	93.195	tonnes
4. Analgesics, Antipyretics and Anesthetics	49.20	tonnes	93.195	tonnes
5. Antimalarials	31.56	tonnes	62.05	tonnes
6. Anti-dysentery	1523.49	kgs.	1092.12	kgs.
7. Hormones and Steroids	500	tonnes	310.41	tonnes
8. Vitamins	283.26	tonnes	279.00	tonnes
9. Sulpha Drugs and Intermediates				

Exports of drugs and pharmaceuticals are substantial and they have registered a significant increase in recent years as is clear from the following figures.

1972-73	Rs. 11.5 crores
1973-74	Rs. 16.4 crores
1974-75	Rs. 24.5 crores

2.3. A wide range of raw materials is used in the production of drugs and pharmaceuticals. The list covering the main raw materials required in the manufacture of drugs, their quantitative requirements by 1978-79, names of local manufacturers, where the raw material is indigenous, as drawn by the Development Council for Drugs and Pharmaceuticals may be referred to in the publication entitled "INDIAN PHARMACEUTICAL INDUSTRY-1973". The list also indicates the raw materials which are not produced indigenously and have to be imported.

Future Scope

3.1. The draft Fifth Plan target envisages production of Rs. 500 crores of medicines by 1978-79. The Task Force on Drugs and Pharmaceuticals industry has estimated the pattern of demand for the various individual products by 1978-79, as indicated in Table A. As a first priority there is need for increasing the production and/or establishment of capacity for the bulk drugs listed below, which were imported during 1974-75 for values exceeding Rs. 10 lakh each:

Partly indigenous

1. Chloramphenicol Powder/Palmitate.	10. Piperazine Hexahydrate
2. Ampicillin and Salt	11. Diloxamida/Furazate
3. Streptomycin	12. Chloroquin Salts
4. Griseofulvin	13. Dexamethasone and its salts
5. Erythromycin esters and Salts.	14. Ephedrine and its salts
6. Neomycin	15. Vitamin B1
7. Metronidazole	16. Vitamin B1
8. Oxyphenylbutazone	17. Vitamin B2
9. Sulphadimidene	

18. Ethisterone	22. Sulphametoxy
19. Noa Ethisterone	Pyridazine
20. Sulphamerazine	23. Sulphametoxazole
21. Pyrazinamide	

Total imported

24. Framycetin (Sterile and Oral)	35. Oxytocin
25. Pyrithyldione	36. Alkaloids of Ergot
26. Propyphenazone	37. Thioridazine
27. Chlorpheniramine Maleate	38. Polyomyelitis Vaccine, oral
28. Ethionamide	39. Sulphadimetoxine
29. Methyl Dopa	40. Pyrithioxine
30. Polyvinyl Pyrrolidone (PVP)	41. Gentamycin Sulphate
31. Aminophylline	42. Gycloserine D-Tartrate
32. Theophylline	43. Bacitracin/Zinc
33. Trimcinolone and Derivations	44. Ibuprofen
34. Phenyl ephrine Hcl	45. Vitamin B-6
	46. Pantothenates Na and C

3.1. Items like streptomycin, semi-synthetic penicillins, chloroquin, metronidazole, pyperazine, vitamins B1, B2, B6, sulpha drugs, erythromycin, gentamycin sulphate, doxycycline, griseofulvin, pantothenate, etc. are on the current and further production programme as units in the public sector.

3.2. Proposals in respect of drugs mentioned in para 3.1. above will be considered on merits vis-a-vis the capacities already approved. The entrepreneurs may also note that as a result of an exercise made on the suitability of the basic manufacture of the different bulk drugs by the various sectors of the industry, it has been considered to assign the manufacture/expansion of some bulk drugs preferably to Indian Sector of the Industry and to keep others as "open" for licensing. These two lists may please be seen in Table B. Before formulating their proposals, the entrepreneurs are advised to seek guidance of the Ministry of Chemicals and Fertilizers as well as of the Ministry of Health and Directorate General of Technical Development.

4.1. Foreign technical collaboration will have a role to play in the field of new and sophisticated technology. This would, however, be confined to important field of basic drugs on merits.

4.2. The existing manufacturers will need to reassess their potentiality and performance specially with regard to the technology adopted for bulk drug manufacture with a view to optimisation of capacity already installed and remodel the production from more basic stages, as distinct from imported late intermediates or penulti-mates.

4.3. The manufacturers of bulk drugs would be required to supply specified proportion of their produc-tion to non-associated formulators.

4.4. In consideration of the wide technological gap that still exist, greater attention is to be paid by the industry, to the establishment of Research and Deve-lopment facilities, in all spheres of activity particularly in relation to the local/regional needs. Applicants should, therefore indicate whether research and deve-lopment work has already been undertaken or is planned either individually, collectively or through any schemes sponsored by them with the National Labora-tories.

TABLE A

<i>Sl. No.</i>	<i>Group/ Name of the Drug</i>	<i>Unit</i>	<i>Estimated Demand 1978-79</i>
1	2	3	4
(I) Antibiotics			
1.	Penicillin	MMU	500
2.	Streptomycin Sulphate	Tonnes	425
3.	Tetracyclines	Tonnes	200
4.	Oxytetracycline	Tonnes	80
5.	Chloramphenicol and its esters	Tonnes	300
6.	Dimethyl-chlortetracycline	Tonnes	23
7.	Amphotericin	Kgs.	3000
8.	Ampicillin & Other synthetic Penicillins	Tonnes	45
9.	Bacitracin	BU	23
10.	Cycloserine	Tonnes	8
11.	Erythromycin	Tonnes	30
12.	Griseofulvin	Tonnes	20
13.	Hamycin	Kgs.	150
14.	Kenamycin	Tonnes	0.8
15.	Neomycin	Kgs.	10,000
16.	Nystatin	Kgs.	3000
17.	Oleandomycin	Kgs.	1500
18.	Polymycin	Kgs.	130
19.	Cephaloridine	Kgs.	—
20.	Gentamycin	Kgs.	—
21.	Rifampicin	Kgs.	—
22.	Framycetin	Kgs.	—
23.	Lincomycin	Kgs.	—

1	2	3	4
(II) Sulfas			
1.	Sulphadiazine	Tonnes	230
2.	Sulfadimidine	Tonnes	1010
3.	Sulfacetamide derivatives	Tonnes	80
4.	Phthalyl sulfathiazole	Tonnes	150
5.	Sussinyl sulfathiazole	Tonnes	8
6.	Sulfamerazine LP	Tonnes	34
7.	Sulfamethiazole	Tonnes	12
8.	Sulfafurazole LP	Tonnes	6
9.	Sulfasomidine	Tonnes	260
10.	Sulfaphenazole	Tonnes	180
11.	Sulfamexazole	Tonnes	45
12.	Sulfaguanidine LP	Tonnes	133
13.	Sulfamethoxy-pyridazine LP	Tonnes	17
14.	Sulfadimethoxine	Tonnes	30
15.	Sulfathiazole LP	Tonnes	—
16.	Sulfamethoxazole	Tonnes	—

(III) Anti-Tuberculosis Drugs

1.	PAS and its salts	Tonnes	100
2.	Isoniazid	Tonnes	265
3.	Thiacetazone	Tonnes	70
4.	Ethambutol	Tonnes	20
5.	Pyrazinamide	Tonnes	12
6.	Morphazinamide LP	Tonnes	1.32
7.	Ethionamide	Tonnes	12

(IV) Anti-Dysentery Drugs

1.	Halogenated oxyquinolines	Tonnes	450
2.	Emetine and dehydroemetine	Kgs.	900
3.	Metroniadazole LP	Tonnes	50
4.	Diloxanide	Tonnes	35

(V) Anti-Leptotics

1.	Dasone	Tonnes	30
2.	Clofazimine	Tonnes	—

(VI) Anti-Diabetics

3.	Insulins	M.U.	3000
2.	Tolobutamide	Tonnes	75
3.	Chlorpropamide	Tonnes	40
4.	Phenformin	Tonnes	15
5.	Glybenclamide	Tonnes	—

(VII) Anti-Malarials

1.	Quinine salts	Tonnes	—
2.	Amodiaquin	Tonnes	55
3.	Chloroquin	Tonnes	150
4.	Primaquin	Tonnes	1.5

1	2	3	4
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(VIII) Anti-Failarials

1. Diethylcarbamazine citrate	Tonnes	45
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(IX) Anaesthetics

1. Procaine hydrochloride	Tonnes	200
2. Xylocaine	Tonnes	14
3. Ether	Tonnes	530
4. Ethyl chloride	Kgs.	150
5. Halothane	Lit.	400
6. Carbocaine	Tonnes	—
7. Maresaine	Tonnes	—

(X) Analgesics, Antipyretics and Anti-Gout

1. Aspirin	Tonnes	1900
2. Sodium salicylate	Tonnes	600
3. Phenacetin	Tonnes	500
4. Paracetamol	Tonnes	400
5. Analgin	Tonnes	400
6. Amidopyrine	Tonnes	20
7. Pethidine	Kgs.	1200
8. Phenylbutazone	Tonnes	200
9. Oxyphenyl butazone	Tonnes	50
10. Indomethasin	Tonnes	12
11. Probonecid	Kgs.	1200
12. Allopurinol	Kgs.	
13. Dextropropoxyphane		
14. Trichlorophos sodium		

(XI) Anthelmentics

1. Piperazine and its salts	Tonnes	118
2. Bephenium Hydroxynaphthoate	Tonnes	15
3. Thiabendazole	Tonnes	4
4. Niclosamide	Kgs.	
5. Tetramizole	Kgs.	
6. Pyrantel Pamoate/tartrate	Kgs.	

(XII) Barbiturates

1. Phenobarbitone	Tonnes	34
2. Amylbarbitone	Tonnes	10
3. Secobarbitone	Tonnes	20

(XIII) Hormone

A. Sex-hormones

1. Ethisterone	Kgs.	480
2. Nor-Ethisterone	Kgs.	192

1	2	3	4
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3. Progesterone and salts	Kgs.	192
4. Norgestrol	Kgs.	48
5. Mestranol/ethinyl estradiol	Kgs.	288
6. Testosterone esters	Kgs.	680
7. Methyl testosterone	Kgs.	192
8. Methendienone	Kgs.	288
9. Lynestronol	Kgs.	150

B. Cortice Steroids

1. Cortisone	Kgs.	6700
2. Hydrocortisone	Kgs.	4500
3. Prednisone	Kgs.	100
4. Prednisolone	Kgs.	1500
5. Triamcinolone and Acetonide	Kgs.	90
6. Dexamethasone	Kgs.	150
7. Betamethasone	Kgs.	90

C. Others

1. Adrenaline Salts	Kgs.	96
2. Nor-Adrenaline	Kgs.	12
3. Oxytocin	MU.	240
	Kgs.	—

(XIV) Drugs of Vegetable Origin

1. Atropine	)	
2. Hematropine	)	Kgs. 75
3. Hyoscine	)	
4. Hyosyamine	)	
5. Butyl hydrobromide	Kgs.	75
6. Digoxin	Kgs.	150
7. Ergetamine/orgometrine	Kgs.	75
8. Caffeine	Tonnes	160
9. Morphine	Kgs.	1600
10. Codeine and codeine phosphate	Tonnes	20
11. Papaverines	Tonnes	6
12. Reserpine	Kgs.	20
13. Strychnine and Brucine	Tonnes	60
14. Berberine	Tonnes	18
15. Squill glycosides	Tonnes	3
16. Sennosides	Tonnes	40

(XV) Enzymes

1. Cellulose	Tonnes	9
2. Papain	Tonnes	75
3. Pancreatin	Tonnes	30
4. Diastase	Tonnes	45
5. Lipase	Tonnes	6

(XVI) Plasma Substitutes

1. Dextran	Million lits.	1
2. Polyvinyl pyrrolidene	Tonnes	38

1	2	3	4
(XVII) Vitamins			
1. Vitamin A	MMU	80	
2. Vitamin B1 (Hcl & Mononitrate)	Tonnes	100	
3. Vitamin B2 riboflavine 5 phos	Tonnes	24	
4. Vitamin B6	Tonnes	50	
5. Vitamin B12	Kgs.	300	
6. Folic Acid	Tonnes	7.5	
7. Nicotinic Acid/amide	Tonnes	600	
8. Panthenol/pantothenates	Tonnes	60	
9. Vitamin C	Tonnes	900	
10. Vitamin D2/D3	Tonnes	1	
11. Vitamin E	Tonnes	9	
12. Vitamin K	Kgs.	1140	
13. Vitamin P (Rutin)	Tonnes	7	

(XVIII) Anti-Depressants and Tranquilisers (cns Drugs)

1. Imipramine	Kgs.	900
2. Amitryptiline	Kgs.	400
3. Methaqualone	Tonnes	20
4. Chlordiazeposide	Tonnes	16
5. Diazepam	Kgs.	500
6. Chlorpromazines	Tonnes	12
7. Phenothizines derivatives	Tonnes	12
8. Meproamate	Tonnes	50
9. Haloperidol		
10. Doxenin		
11. Thithixene		

(XIX) Anti-Hypertensive and cv Drugs

1. Methyl Dopa	Tonnes	50
2. Guanthidine	Kgs.	35
3. Prenylamine lactate	Kgs.	1600
4. Isoxopurine	Kgs.	1000
5. Clofibrate	Kgs.	2000
6. Mephentermine	Kgs.	200
7. Quinidine	Tonnes	15
8. Propanalol	—	—
9. Salbutamol	—	—

(XX) Anti-Histamines

1. Pheniramine	Tonnes	6.5
2. Chlorpheniramine	Tonnes	16
3. Diphenhydramine	Tonnes	16

(XXI) Diuretics

1. Hydrochlorthiazide	Tonnes	40
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1	2	3	4
2. Hydroflumethiazide	Tonnes	40	
3. Polythiazide	Tonnes	16	
4. Frusemide	Tonnes	3.5	
5. Acetazolamide	—	—	
6. Spiranolactone	—	—	
7. Bendrofluazide	—	—	

(XXII) Anti-Parkinsonions

1. L-Dopa	Kgs.	1000
2. Amantadine	—	—

(XXIII) Anti-Moities

1. Methotraxate	Kgs.	200
2. Cyclophosphamide	Kgs.	200
3. Hydroxy urea	—	—
4. 6-Meroaptoputine	—	—
5. Testolactone	—	—
6. Thiotepa	—	—
7. Mustine H _{c1}	—	—
8. Chlorambucil	—	—
9. Melphalan	—	—

(XXIV) Radio and X-ray Contrast media

1. Iodipamide	}	100
2. Di and triazine salts		
3. Sodium meglumine Iothalomite		
4. Iodoxyl		

(XXV) Vasedilators

1. Ephesine (Semi-synthetic)	Tonnes	45
2. Theophylline/aminophylline	Tonnes	60
3. Xanthional nicotinate	Kgs.	6000

(XXVI) Immunological Agents

1. Diptheria AT	MU	4000
2. Tetanus AT	MU	30,000
3. DTP (Triple vaccine)	M. Doses	20
4. B.C.G. Vaccine	"	66
5. Polio vaccine	"	20
6. Tetanus toxoid	"	32
7. Gas Gangrene antitoxin	"	

(XXVII) Anti-Epileptics

1. Phenyl hydention and derivatives	Tonnes	12
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1	2	3	4
(XXVIII) Miscellaneous			
1. Calcium gluconate	Tonnes	400	
2. Ferrous gluconate	Tonnes	120	
3. Ferrous succinate	Tonnes	25	
4. Ferrous fumarate	Tonnes	50	
5. Ferrous sulphate	Tonnes	240	
6. Nikethamide	Tonnes	15	
7. Furazolidine	Tonnes	30	
8. Nitrofurantoin	Tonnes	45	
9. Nitrofurazone	Tonnes		
10. Nalidixic acid	Tonnes	—	
11. Azothioprine	Tonnes	—	
12. Iron choline citrate	Tonnes	—	
13. Trimethoprim	Tonnes	—	

The manufacturers of bulk drugs may also be required to make available to the non-associated formulators and small-scale units detailed technical literature in respect of the concerned bulk drugs indicating their chemical nature and incompatibility, if any, with other items.

TABLE B

**Items open for expansion, preferably through
Indian sector**

Indo-Chloro-hydroxy-quinoline
Diethyl Carbamazine Citrate
Diethyl ether
Ethyl Chloride
Amitryptilene
INH
PAS
Thiacetazone
Paracetamol
Emetine.

Items open for licensing

Chloramphenicol Chlorpheniramine Maleate
Chlorpromazine Hcl
Vitamin—A
Vitamin—B-12
Vitamin—D-2/D3
Glycerol trinitrate.
Tetrachloroethylene
Insulin
DDS (Da-psone)
Chloroquin Phosphate
Primaquin Phosphate
Aspirin
All Steroids/Hormones
Hydrochlorothiazide
Theophylline/Aminophylline
Succinyl Choline Chloride
Nor-adrenalline tartarate
Oxytocin
Methyl ergometrine maleate
Mephentermine Sulphate
Atropine Sulphate
Bacitracin
Oleandomycin
Thiopental Sodium
Reserpine
Homotropine
Physostigmine
Menthol
Thymol
Benzoic acid
Benzaldehyde
Salicylic acid
Methyl Salicylate
Cetrimide
Prenylamine lactate
Oxyphenyl butazone
Dexamethazone
Triamcinolone acetate
Thioridazine (Malleril)
Isoptin.

List I

TEXTILES

COTTON TEXTILES

Present Status

1.1. The textile industry is one of the major industries in the country both in terms of aggregate investment and employment potential.

1.2. There are at present 691, cotton textile mills in the country consisting of 403 purely spinning mills and 288 composite mills. 103 sick textile mills, the management of which has been taken over by Government are being administered through the National Textile Corporation and its subsidiaries. At the beginning of 1975, the capacity stood at 188.6 lakh spindles and 206,921 looms. Besides this, the Government have already approved additional capacities comprising of 21.2 lakh spindles and 530 looms.

Government have exempted from the licensing provisions cotton spinning for the manufacture of cotton yarn upto a capacity of 50,000 spindles subject to the following conditions:

- the packings of yarn in hank form and the countwise production should be in accordance with the policy in force and the directions issued by the Textile Commissioner in this regard from time to time.
- new unit should have a capacity of 25,000 spindles.
- the unit should be located in an area other than in towns with a population of more than 10 lakhs.

Production

1.3. The output in the mill sector has been as follows:

	Cotton Yarn	Cotton Cloth
1973	9982 lakh kg.	41,689 lakh meters
1974	10,070 lakh kg.	43,164 lakh meters
1975	9778 lakh kg.	40,348 lakh meters

The output of cotton cloth in the decentralised sector has been as under:

1973	36,540 lakh metres
1974	39,683 lakh metres
1975	38,591 lakh metres

Controlled Cloth

1.4. Production of controlled cloth of coarse and

lower medium varieties in the preceding 3 years has been as follows:

1973	4290 lakh metres
1974	6900 lakh metres
1975	7019 lakh metres

Exports

1.5. Exports of cotton textiles have been as follows:

Year	Total value of cotton cloth exported (Rs. in crores)
1972	150.94
1973	252.22
1974	353.07

The main problem of the existing textile units has been the need for large scale modernisation, the progress of which has been slow so far.

Future Scope

2.1. The draft Fifth Plan targets for output of yarn and cloth to meet requirements for domestic consumption and exports, are 12,700 lakh Kg. and 100,000 lakh metres respectively by 1978-79. Of the cloth target, 52,000 lakh metres are expected to be produced in the mill-sector. Based on the export performance of the past two years and the buoyancy in international markets, it is projected that by 1978-79 cotton textile exports will increase substantially. There is good export potential for fabrics such as wide width sheeting, terrytowels, denims, drills, canvas, etc. A promising market is emerging in fully processed dress fabrics as well.

The broad variety-wise distribution of the cotton cloth output has been projected as follows:

Coarse and medium 'B'	22,880 lakh metres
Medium 'A'	20,800 lakh metres
Fine and superfine	8320 lakh metres

As regards yarn, the broad pattern of consumption in the organised-decentralised weaving sectors and for hosiery and other applications and exports is expected to be as follows:

Organised sector	6500 lakh kg.
Decentralised sector	4800 lakh kg.
Handlooms	3000 lakh kg.
Powerlooms	1800 lakh kg.
Exports	450 lakh kg.
Miscellaneous uses (hosiery, rope making etc.)	950 lakh kg.
Total	12,700 lakh kg.

The licensing targets for the Fifth Plan, in spindleage and loomage and other balancing facilities are being framed with a view to achieving this quantum and patterns of yarn and cloth production for domestic consumption and exports.

2.2. The principal guidelines for the future expansion of the industry may be enumerated as follows:

- (1) Expansion of spinning capacity, with special emphasis on meeting the requirements of the decentralised sector and interests of cotton growers.
- (2) Emphasis on production of coarse and lower medium varieties of cloth to meet the basic minimum needs of the people.
- (3) Expansion of exports in quantity and increase in unit added values to conform to the Plan targets.
- (4) Modernisation of the industry, including greater economics of scale, balanced utilisation of equipment, lowering of unit costs, etc. Special consideration will be given to improved preparatory, and processing capacities.

HOSIERY INDUSTRY

Present Status

1.1. The Hosiery Industry is predominantly a small scale Industry spread all over the country in various States. The main places where the industry is located are as under:

Maharashtra	Bombay
Gujarat	Surat and Ahmedabad
Punjab	Ludhiana and Amritsar
West Bengal	Calcutta
U.P.	Kanpur
Karnataka	Belgaum
Tamil Nadu	Tirupur

The hosiery industry has three sectors viz. Cotton, Synthetic and Woollen. Each of these three sections are concentrated in certain areas of the country. While cotton hosiery is mainly at Calcutta, Tirupur and Bombay, the synthetic hosiery is predominantly located at Bombay, Surat and Delhi. The woollen hosiery units are mainly located at Ludhiana.

1.2. The number of hosiery knitting units are esti-

mated at about 5,000 units having about 45,000 knitting machines.

Set up of the Industry

1.3. The hosiery industry has 4 branches viz. knitting, bleaching/dyeing, cutting and stitching. The pattern of the industry is that the knitting, cutting and stitching are commonly done in individual units whereas the processing (dyeing, bleaching and printing) is done in separate processing units.

Items of Manufacture

1.4. The industry manufactures the following ranges of items:-

Wool:

Woollen socks, Jerseys, Pullover, Cardigan and Mufflers.

Cotton:

Vests, T-Shirts, Blouses, Ladies' Dress Material (Printed & Dyed) and Briefs.

Rayon/Synthetic:

Underwear, Tops, Bell Bottom Materials, Trousering and suiting for ladies and gents, swimming costumes and sports wear, etc.

Production

1.5. The annual production of all varieties of hosiery items is estimated at about Rs. 225 crores.

Exports

1.6. The exports of hosiery goods are showing upward trend as per details below:-

	Woollen	Cotton	Art/silk Synthetic
1972-73	Rs. 16.38 crores	Rs. 0.93 crores	Rs. 0.081 crores
1973-74	Rs. 17.50 crores	Rs. 3.01 crores	Rs. 0.011 crores
1974-75	Rs. 19.27 crores	Rs. 5.57 crores	Rs. 0.460 crores

The targets of export in these sectors are as under:

	Woollen	Cotton	Art/silk
1975-76	Rs. 21.00 crores	Rs. 15.00 crores	Rs. 1.5 crores
1976-77	Rs. 29.10 crores	Rs. 20.00 crores	Rs. 2.00 crores
1977-78	Rs. 42.00 crores	Rs. 25.00 crores	Rs. 3.50 crores
1978-79	Rs. 50.00 crores	Rs. 30.00 crores	Rs. 5.00 crores

Future Scope

2.1. As the hosiery industry has considerable potentialities for export, a panel has recently been set up to devise ways and means for its development. There is

scope for the establishment of new units particularly for exports and the indigenous equipment.

2.2. There is a knitting technology institute at Ludhiana which imparts training leading to diploma in knitting technology. Apart from this, SASMIRA in Bombay have also started a certificate course in knitting technology. In view of the export potential, further measures are being conceived to develop training facilities in the Eastern and the Southern parts of the country.

WOOLLEN TEXTILE INDUSTRY

Present Status

1.1. Woollen Textile Industry in the country consists of the organised sector and decentralised sector.

The organised sector consists of woollen spinning units/composite units/woollen combing units/machinemade carpets. The decentralised sector covers hosiery/powerloom/handloom/hand knitted carpet units.

1.2. The licensed/installed capacities of various sectors of woollen industry are as below:

	<i>Licensed</i>	<i>Installed</i>
1. Worsted Spindles	258,900	213,700
2. Woollen Spindles	200,400	114,500
3. Shoddy Spindles	47,812	25,460
4. Union Spindles	4,672	4,672
5. Powerlooms	5,579	4,359
6. Combing (Wool)	71.13 M.lbs.	47.88 M.lbs.
7. Combing (Synthetic)	3.6 M.lbs.	3.6 M.lbs.

Future Scope

2.1. With the industry depending upon imported raw material for most of its requirements and with the limited foreign exchange availability, further licensing of new units and also facilities for expansion of capacities in this sector is envisaged only on the basis of high export obligation and/or proven export performance.

Proposals for setting up units for exporting entire production could be considered on merits.

READYMADE GARMENTS

Present Status

1.1. Indian handloom and other types of readymade garments are getting increasingly popular in overseas markets. In the recent years, there have been rapid strides in setting up of new garment factories, with latest machines/equipment to meet the increasing world demand. As a result, exports have risen from Rs. 11.51 crores in 1970 to Rs. 96 crores in 1974 and are expected to reach the level of Rs. 140 crores in 1975-76.

Future Scope

2.1. With the ready availability of skilled labour and cotton fabrics, the country's share of the international market is expected to grow rapidly. There is scope for setting up additional capacity for garments. There is also need for the manufacture of special types of machinery required for garment manufacture, as also for the manufacture of components for this machinery.

<i>Production of woollen yarn</i>					<i>All figures in '000s</i>				
<i>Worsted</i>					<i>Fabrics</i>				
<i>Year</i>	<i>Wool Tops kgs.</i>	<i>Shoddy kgs.</i>	<i>Woollen kgs.</i>	<i>Wvg. kgs.</i>	<i>Hosy. kgs.</i>	<i>Knts kgs.</i>	<i>Wearable Metres</i>	<i>Nonwear- able Metr-es</i>	<i>Hosiery</i>
1972	12491	8672	20086	9653	2843	2422	25484	7805	2122
1973	8192	4790	19957	6800	2003	1706	17952	4311	1502
1974	11685	6163	20969	8610	2535	2130	22731	5541	1901

1.3. The production of woollen yarn/fabric/hosiery are as above:

Exports

1.4. The quantum of export has been as under:

1972	Rs. 48.20 crores
1973	Rs. 53.58 crores
1974	Rs. 61.32 crores

Target for 1978-79 is Rs. 141 crores. Presently the bulk of Exports is of hosiery goods and carpets.

JUTE PRODUCTS

Present Status

1.1. There are 69 jute mills in the country, of which 57 are in West Bengal, 4 in Andhra Pradesh, 3 in Uttar Pradesh, 3 in Bihar, 1 each in Assam and Madhya Pradesh. The existing capacity of these jute mills is about 13.20 lakh tonnes per annum. An additional capacity of 1.13 lakh tonnes is likely to be created through setting up of 8 new jute mills in various jute growing States. The work in this direction is in progress. Besides, there are 24 registered jute twine units in the

country having production capacity of around 71,000 tonnes per annum.

1.2. The broad category-wise production and export of jute goods during the last three years were as under:

capacity is planned to be stepped up to 16.14 lakh tonnes for meeting both domestic and export demand, consisting of 3.97 lakh tonnes of hessian, 2.23 lakh tonnes of carpet backing, 8.14 lakh tonnes of sacking

I Production						Qty. '000 tonnes
YEAR (April-March)	Hessian	Carpet Backing	Sacking	Others	Total	Value (Rs. lakhs)
1972-73	350.0	182.5	525.8	153.0	1211.3	
1973-74	312.4	171.5	441.2	149.3	1074.4	
1974-75	342.4	124.4	448.7	133.2	1048.7	
II Export						
YEAR						
1972-73	256.4	162.6	91.0	68.4	578.4	24906
1973-74	225.2	178.3	91.7	74.7	561.9	22679
1974-75	265.2	119.8	130.4	67.8	583.2	29485

The actual production was below the rated capacity due to a variety of reasons, namely, shortage of spinning and other back-processing equipments, shortage of raw material and power supply and short fall in export demand. Of late, while production has been maintained at a steady rate, exports have dwindled due mainly to intense competition from synthetic substitutes and prolonged economic recession in other countries.

Future Scope

2.1. By the end of the Fifth Plan, the production

and 1.80 lakh tonnes of 'other' goods. With an existing installed capacity of 13.20 lakh tonnes as against the demand projection of 16.14 lakh tonnes, there will be a gap of 2.94 lakh tonnes at the end of the Fifth Plan. The gap is proposed to be bridged by creation of additional capacity of 1.13 lakh tonnes through installation of new jute mills, 0.71 lakh tonnes through partial modernisation/normal replacement of machineries of the existing mills and 1.10 lakh tonnes through providing balancing equipments.

FERMENTATION INDUSTRY

INDUSTRIAL ALCOHOL

1973	2,35,359 KL
1974	2,42,069 KL
1975	2,80,000 KL

Present Status

1.1. Manufacture of alcohol is largely dependant on the availability of molasses, a bye-product of sugar industry. Whenever, there is a decrease in the production of sugar, there is a shortfall in the production of alcohol due to decreased availability of molasses. Alcohol is an important raw material in the manufacture of many organic chemicals like, butanol acetic acid, etc. and also in the manufacture of synthetic rubber, plastics and synthetic fibre.

1.2. At present, 68 units with a total capacity of 3,49,300 KL are reporting the production of industrial alcohol. 13 more units with a total capacity of 73,355 KL have also been licensed/registered and these are under different stages of implementation. The total production of alcohol during the last three years in the organised sector was as follows:-

The capacity utilisation of the industry is of the order of 80%.

Future Scope

2.1. There is likelihood of increase in the availability of molasses for the manufacture of alcohol with the coming up of new sugar factories in the country. Government may, therefore, consider proposals for the manufacture of alcohol in such of those states where there is a surplus availability of molasses and also having regard to the existing units and their utilisation of capacity. Proposals based on khandsari molasses will also be considered wherever its availability is assured.

As far as IMFL is concerned, no fresh capacity or expansion of existing units will be considered unless 100% of the production is for export.

PAPER AND PULP INCLUDING PAPER PRODUCTS

PAPER AND PAPER BOARD

Present Status

1.1. There are three main categories of paper and paper board viz. (i) writing/printing paper manufactured in several qualities such as white printing paper, map litho, etc., (ii) industrial paper such as wrapping and packaging paper, paper boards, etc., and (iii) speciality papers such as carbonising tissue filter paper, cigarette tissue, insulating paper etc.

1.2. There are at present 74 paper mills with an installed capacity of 10.68 lakh tonnes per annum. An additional capacity of 6.36 lakh tonnes per annum has been licensed. Moreover, letters of intent have been issued for an additional capacity of 21.15 lakh tonnes per year. A further capacity of 1.20 lakh tonnes has been registered with Directorate General of Technical Development. From the progress made in the implementation of some of the schemes, it can be estimated that a capacity of about 92,000 tonnes will materialise by the end of 1976.

1.3. The production of paper and paper board during the last three years was as under:

1973	7,97,000 tonnes
1974	8,37,000 tonnes
1975	8,29,000 tonnes

1.4. Imports are restricted to certain varieties of speciality papers, e.g. electrical insulating and filter paper etc. Such imports during the last three years were as follows:

1972-73	21,640 tonnes
1973-74	17,000 tonnes
1974-75	16,104 tonnes

1.5. The current level of annual export is of the order of Rs. 3.88 crores. Exports are mainly of certain types of speciality papers, such as cigarette tissue papers and industrial papers and boards.

Future Scope

2.1. The draft Fifth Five Year Plan target aims at achieving a capacity of 14 lakh tonnes per annum for

paper and paper boards by 1978-79. The gap at present between this and the installed capacity is about 3.30 lakh tonnes, which is expected to be covered by the capacity under implementation. The Government of India have exempted paper industry, based on agricultural residues and indigenous machinery, from the provisions of Industries (Development and Regulation) Act, subject to certain conditions. The integrated paper mills based on forest based raw materials will, however, be continued to be covered by the Industries (Development & Regulation) Act 1951 and these proposals will be considered on merits.

2.2. The paper industry is highly capital intensive and integrated project for pulp and paper with chemical recovery and with a capacity of 100 tonnes per day requires investment of the order of Rs. 35-40 crores.

2.3. As the availability of forest raw materials is limited, utilisation of non-conventional raw materials such as bagasse, cereal straws, etc. is being encouraged by the Government and special rebate in excise duty is allowed for the use of these raw materials. In the case of smaller plants, applicants are advised to take special care for effluent disposal in order to prevent pollution.

2.4. Indigenous know-how for the manufacture of common varieties of paper is available. Proposals for foreign collaboration can be considered for the manufacture of speciality papers on merits.

NEWSPRINT

Present Status

1.1. There is at present only one unit, engaged in the production of newsprint. The capacity of this mill is 75,000 tonnes per annum. The production of this unit was 51,971 tonnes during 1975. Steps are being taken to increase the capacity of the pulping in this unit which is likely to be completed by the middle of 1976.

1.2. An additional capacity of 3.70 lakh tonnes per annum has been approved. Except for the Kerala Project of Hindustan Paper Corporation, the progress in the implementation has been slow.

Future Scope

2.1. The draft Fifth Five Year Plan target for capacity for newsprint is 2.05 lakh tonnes per year by

1978-79. In view of the slow progress of the schemes approved so far, licensing of additional capacity for newsprint is considered necessary and proposals for the establishment of newsprint projects would be considered on merits.

2.2. This is a capital intensive industry with a gestation period of 4 to 5 years. Proposals for foreign collaboration may be considered on merits.

RAYON GRADE PULP

Present Status

1.1. Due to increasing popularity of man-made cellulosic fibres, the demand for rayon grade pulp is increasing at a rapid rate. There are at present, three units engaged in the manufacture of rayon grade pulp with an installed capacity of 117,600 tonnes per annum. An additional capacity of 248,000 tonnes per annum has been approved. The production during the last three years was as under:

1973	90,600 tonnes
1974	113,000 tonnes
1975	106,419 tonnes

1.2. The current requirements of rayon grade pulp in the country for staple fibre are met completely from indigenous production. Capacity for the manufacture of suitable pulp for tyre cord has been recently developed by one of the existing units. Imports are restricted to only wood pulp suitable for the manufacture of rayon filament tyre cord yarn which are still sizable.

Future Scope

2.1. The Task Force had suggested the target of production for rayon grade pulp by 1978-79 at 205,000 tonnes per annum, corresponding to a capacity of 230,000 tonnes. Having regard to the installed capacity and the slow progress in the implementation of the approved schemes, there is still scope for licensing of additional capacity in this field.

2.2. Proposals for foreign collaboration for the manufacture of tyre cord/special grade pulp would be considered on merits.

CIGARETTE TISSUE PAPER

Present Status

1.1. There is at present one unit with a capacity of

8,500 tonnes per year. Additional capacity of 14,000 tonnes has been approved, out of which, a capacity of 10,000 tonnes is under implementation.

1.2. Current level of production is around 6,000 tonnes per year. Small exports have taken place recently.

Future Scope

2.1. The demand is expected to rise to about 10,000 tonnes by 1978-79. Having regard to the capacity already approved, there is no scope for approving further capacity.

2.2. The investment for a minimum economic capacity unit for the production of this item along with other speciality papers is 3,000 tonnes per annum, which requires an investment of the order of Rs. 8 to Rs. 10 crores. Foreign collaboration can be considered on merits.

ELECTRICAL INSULATION PAPERS

Present Status

1.1. Electrical Insulation Papers are used in different sectors of electrical industries such as manufacture of electronic components, electric motors, telephone cables, power insulation cables etc. There is, at present, no indigenous production of these varieties of speciality papers in the country. The entire indigenous demand of these items is, therefore, met by imports.

The import of electrical insulation papers during 1973-74 and 1974-75 was as under:

		Tonnes (Rs. Lakh-s)	
1973-74	Cable condensor paper	157.80	18.19
1974-75	Cable condensor paper	317.00	43.69
1973-74	Insulating papers	1972.00	88.32
1974-75	Insulating papers	2531.00	163.00

Future Scope

2.1. Based on the programme of development of electrical industries, the requirements of insulation papers have been estimated to be of the order of 12,000 tonnes per year by 1980.

Four composite schemes with a total capacity of about 36,000 tonnes per year for different types of speciality papers have been approved. In addition, a project based on softwoods is also under consideration for establishment in the public sector.

SUGAR

SUGAR INDUSTRY

Present Status

1.1. There are 251 sugar factories with an estimated installed capacity of 44.98 lakh tonnes per annum (on 30th September, 1975). The industry is mainly concentrated in the States of Uttar Pradesh, Maharashtra, Bihar and Andhra Pradesh.

1.2. The production of sugar during 1973-74 and 1974-75 seasons amounted to 39.48 lakh tonnes and 47.97 lakh tonnes respectively. The estimated output during 1975-76 is likely to be around 48 lakh tonnes.

1.3. Production in the cooperative sector constitutes a special feature of this industry. There are 96 sugar factories in the cooperative sector, 13 in the public sector and 142 in the private sector.

1.4. At present, establishment of additional capacity of 25.24 lakh tonnes through 104 new projects and 52 schemes of expansion of the existing factories are pending implementation. Among the 104 new factories proposed, 81 have been licensed in the Cooperative Sector. In addition to this, a capacity of 2.08 lakh tonnes through one new unit and 24 schemes of expansion of the existing units has also been registered under the liberalised licensing policy.

1.5. Sugar is an important export commodity and has emerged as the single largest foreign exchange earner for the country. The sugar exports in 1975 were about 9 lakh tonnes.

Future Scope

2.1. In the draft Fifth Plan, the capacity target for production of vacuum pan sugar has been indicated as 60 lakh tonnes per annum by 1978-79. Correspondingly, the industry will need to attain an overall licensed capacity of about 70 lakh tonnes per annum. Licences have already been issued to increase the licensed capacity to 70 lakh tonnes. As sugar was commanding a good price in the international market and there was urgent need to augment foreign exchange resources by export of more sugar, it was decided to increase the production capacity by grant of additional licences. Therefore, it has been decided to consider cases for licensing further capacity, on a selective basis, by way of expansion of existing units, which are supported by adequate availability of finances and sugarcane and for establishment of new factories in Public Sector, where adequate provision exists in the State Plans.

2.2. In recent years, there has been a steep rise in the

cost of plant and machinery required for the sugar projects. The Central Financing Institutions were therefore, finding it difficult to advance term-loans to the entrepreneurs of new sugar factories as well as to the existing sugar factories for effecting expansion. To overcome the difficulty, Government have sanctioned a scheme of incentives to the new sugar factories and expansion schemes consisting of excise duty concessions and higher percentage of levy-free sugar quota. The free-sale quota for new projects would be the entire output, for periods varying from two to four years (depending on the recovery zone in which the unit is situated), where plant and machinery cost is Rs. 400 lakhs and more. For plant and machinery prices in the range of Rs. 200 to 400 lakhs also, reduced incentives are available based on a slab system. In respect of expansion of capacities, all licensed expansion would be eligible for the incentives without any qualifying limit relating to the cost of expansions. However, the beneficiaries of this scheme should ensure that the surplus funds available through these incentives are utilised only for the payment of term loans taken from the Central Financing Institutions in accordance with the repayment schedules prescribed by them.

2.3. The entrepreneurs of new sugar factories, as well as the existing units having expansion licences who are eligible for incentives under this scheme, on completion of the project, may furnish to the Directorate of Sugar and Vanaspati, Krishi Bhavan, New Delhi, all the relevant information and documents in this regard for verification of their entitlement.

2.4. For the future growth of this industry, it is important to keep in mind the scope for modernisation of some of the existing plants through more effective management, technological improvements in production (through better extraction) and reduction in the cost of production. It is also necessary to coordinate the development of sugar industry with scientific development of sugarcane production with a higher sucrose content and over a longer crushing season.

2.5. In the context of the future expansion of the sugar industry, attention is also invited to the following aspects:-

- (i) In approving additional capacity in this field, special consideration will be given to schemes which hold out clear prospects of expeditious implementation with potentiality for a significant degree of cost reduction.

- (ii) In the case of expansion, proposals from undertakings which are in a position to meet the cost of expansion from their own resources will be favourably considered.
- (iii) In regard to new undertakings in the field, preference will be accorded to proposals for manufacture of sugar in the public sector and in backward areas.
- (iv) Proposals with improved prospects for increase in the yield/crushing of sugarcane and increased recovery of sugar during crushing season will also receive special consideration.
- (v) Proposals for establishment of sugar factories should envisage a clear agricultural plan for sugarcane development, as an integrated project. In the matter of intensification of production of higher quality sugarcane, the sugar mills have a clear opportunity for initiative.
- (vi) Due consideration will also need to be paid to the scope for economic utilisation of bye-products and for production of other products such as alcohol, paper etc. A development plan indicative of the inputs required, the cost of inputs and the scope for utilisation of the bye-products is desirable.
- (vii) Sugar machinery is being manufactured indigenously by several firms. Proposals for larger capacity in excess of 1250 tonnes of cane a day sugar plants may be formulated in consultation with the plant suppliers.
- (viii) Applications for the establishment of new sugar factories will be considered only in the public sector where adequate provisions exist in the State Plans and supported by sufficient sugar cane availability in the areas. The existing sugar factories which want to effect substantial expansions in their existing units should forward their applications for industrial licences through the State Governments concerned. The State Governments would forward these applications alongwith their recommendations and data on cane availability to the Ministry of Industrial Development (Secretariat for Industrial Approvals). The entrepreneurs are also welcome to seek the guidance of the Directorate of Sugar and Vanaspati in the Ministry of Agriculture and Irrigation, Krishi Bhavan, New Delhi.

FOOD PROCESSING INDUSTRIES

PROCESSED FRUIT AND VEGETABLE PRODUCTS

Present Status

1.1. In the light of various measures, taken for horticultural development, the total production of fruits and vegetables, which was placed at about 50 lakh tonnes at the beginning of the First Plan, increased to about 320 lakh tonnes at the beginning of the Fifth Plan, consisting of 200 lakh tonnes of fruits and 120 lakh tonnes of vegetables. The fruit and vegetable preservation industry in the country is absorbing less than 1% of the total production, whereas in some of the advanced countries it is as high as 70%. Wastage of fresh fruits and vegetables is about 20 per cent valued at Rs. 300 to 350 crores annually. This wastage of large quantities of fruit and vegetables results not only in poor returns to the growers but also in loss of valuable source of nutrition.

1.2. There are 31 organised units with a capacity of 94,323 tonnes reckoned on maximum utilisation of plant and machinery. Because of the seasonal nature of the industry, the installed capacity of these units on the basis of maximum utilisation varying between 150 and 200 days, might be taken only at about 65,000 tonnes per annum. Even the utilisation of this capacity has been low, about 40%.

1.3. The production of processed fruits and vegetables during the last three years was as follows:

1973	25,600 tonnes
1974	26,500 tonnes
1975	24,400 tonnes

1.4. Substantial quantities of processed fruits and vegetables are exported. The exports of these products have recently increased from about Rs. 3.52 crores in 1973-74 to about Rs. 4.98 crores during 1974-75 and are estimated to be of the order of about Rs. 6 crores during the year 1975-76.

Fruit Products Order

1.5. The fruit and vegetable processing industry is regulated by the Fruit Products Order 1955 admini-

stered by the Department of Food of the Ministry of Agriculture and Irrigation. This order has been issued under the Essential Commodities Act for the promotion and development of the fruit and vegetable preservation industry on scientific lines and to ensure that minimum standards of quality as prescribed in the order are maintained by the production units. The order provides for licensing of all manufacturing units engaged in the production of fruit and vegetable products for sale. Director (F&VP) in the Food and Nutrition Board of the Ministry of Agriculture and Irrigation, Department of Food, is the Licensing Authority for this purpose. The power of renewal of licences has, however, been delegated to the Regional Deputy Directors (F&VP) of this Department located at New Delhi, Bombay, Calcutta and Madras.

The fruit and vegetable products meant for exports are subjected to continuous inspection by the staff of the Food and Nutrition Board of the Government of India, who are posted in the factories to ensure quality at all stages of production. There is also pre-shipment check sampling of processed fruits and vegetables meant for export. Quality certificates are issued by the respective Regional Deputy Director (F&VP).

Future Scope

2.1. It is estimated that the demand for processed fruit and vegetables by 1978-79 would be around 1 lakh tonnes for which an installed capacity of about 1.5 lakh tonnes per annum would be required. There is, therefore, scope for creation of additional capacity, especially for export-oriented items like pineapple slices, pineapple juice, tomato paste, guava cheese, concentrates/pulp of fruits, dehydrated vegetables, etc. The industry is well poised for exports, which are expected to increase to about Rs. 20 crores by 1978-79. Most of the plant and equipment for this is available from indigenous sources. Some of the sophisticated items may have to be imported.

MILK POWDER

1.1. The sustained availability of substantial quantities of fluid milk for manufacture of milk powder is one of the major problems of the industry for which

intensive measures are required to be undertaken in consultation with the State Governments. Cattle development programmes designed to give increasing milk yields, alongwith intensification of cross breeding programmes with exotic dairy breeds are proposed to be taken up during the Fifth Plan period. With these programmes, it is expected that the availability of milk will increase substantially.

Present Status

2.1. The present installed capacity is 25,989 tonnes per annum. An additional capacity of 53,664 tonnes per annum is covered by industrial licences and letters of intent.

2.2. The production during the last three years was as follows:

1973	11,042 tonnes
1974	12,416 tonnes
1975	18,000 tonnes

Future Scope

3.1. It had been estimated that by the end of the Fifth Five Year Plan, the demand for milk powder will be of the order of 80,000 tonnes per annum.

3.2. Applications for the manufacture of milk powder will be considered in such locations, which can provide the required quantities of fluid milk and if does not come in conflict with (operation flood) and milk shed areas of State projects, existing units and cooperatives. As cattle breeding and collection of milk can be organised in backward areas, the industry can advantageously be located there. Proposals for the establishment of units in this field should preferably be supported by dairy development schemes and improvements of milch cattle.

3.3. Technology for manufacture of milk powder is available and foreign collaboration is not considered necessary. The economic size of the plant is around 2500 tonnes per annum involving a capital investment of Rs. 125 lakhs.

3.4. Most of the plant and machinery for the manufacture of milk powder are available from indigenous sources. A few items like cream separator, homogenisers and packing machines for ghee, butter, etc. are being imported.

INFANT MILK FOOD

Present Status

1.1. The total capacity covered by industrial licences is 37,128 tonnes. An additional capacity of 15,450 tonnes is covered by letters of intent. The present installed capacity is 26,578 tonnes.

1.2. The production of infant milk food during the last three years was as follows:

1973	18,166 tonnes
1974	11,174 tonnes
1975	20,884 tonnes

Future Scope

2.1. The estimated demand for infant milk food by the end of Fifth Plan had been worked out as 60,000 tonnes per annum. There is scope for further licensing of capacity in areas where sustained supply of fluid milk is assured and where there is no conflict with the operation flood, and milk sheds of State projects, cooperatives and existing units.

2.2. As technology for the manufacture of this product is indigenously available, no foreign collaboration is considered necessary.

2.3. The entrepreneurs shall have to undertake specific programmes for intensive dairy development in the areas allowed for their operation, so as to generate not less than 50 percent of the requirements of milk within a period of five years.

BREAD AND OTHER BAKERY PRODUCTS

Present Status

1.1. There are 16 units for production of bread producing 80,500 tonnes against the installed capacity of 81,300 tonnes. The production of biscuits during 1974 from the 30 units in the organised sector was 64,300 tonnes against the installed capacity of 1.05 lakh tonnes.

Future Scope

2.1. The installed capacity of bread in the organised sector is more or less being fully utilised and there is, therefore, scope for expansion of this capacity. The demand for biscuits in the organised sector is estimated at one lakh tonnes by 1978-79, which can be met by an installed capacity of about 1.5 lakh tonnes. Therefore, additional capacity can be created by licensing a few new units and by allowing the existing units to expand.

CONFECTIONERY

Present Status

1.1. The confectionery industry was initially started by a few sugar mills as an adjunct to their sugar making activities. Later, when demand for confectionery picked up, new units independent of sugar mills came into existence mostly concentrated in Bombay and Calcutta.

1.2. The development of the confectionery industry has been linked with the progress of sugar industry and

its production has fluctuated with the availability of sugar and its price.

1.3. There are 24 units with an installed capacity of about 36,000 tonnes and the capacity utilisation is less than 50 per cent. The production during 1974 was 16,300 tonnes.

Future Scope

2.1. The target of production by the end of the Fifth Plan is 30,000 tonnes for which an installed capacity of about 45,000 tonnes per annum would be necessary. Therefore, there is scope for creating additional capacity of about 8-9 thousand tonnes.

BREAKFAST FOODS

Present Status

1.1. During 1974, there were 3 registered units for production of corn and wheat flakes with an installed capacity of 2548 tonnes and production was only 325 tonnes. The installed capacity of the 4 registered units for processed and pearl barley and one unit for processed and rolled oats/flakes was 6589 tonnes and 2100 tonnes respectively in 1974. The production was, however, only 1400 tonnes and 20 tonnes respectively.

Future Scope

2.1. The present installed capacity is not fully utilised and there is no scope for creation of additional capacity.

HIGH PROTEIN/WEANING FOODS AND READY-TO-EAT/EXTRUDED FOOD PRODUCTS

Present Status

1.1. There are 6 units in the organised sector for production of high protein and weaning foods, with an installed capacity of about 9000 tonnes, while the production has been around 2,900 tonnes.

Future Scope

2.1. In view of the priority being accorded to tackle the problem of malnutrition and undernutrition in children, the demand for these products is expected to pick up. There is, therefore, need for a cautious approach in considering expansion of capacity for these items in a selective manner.

2.2. The extrusion cooking technology is a new one and 2-3 pilot units have been set up by the U.P. Agricultural University, Pantnagar and M/s. Kaira District Cooperative Milk Producers Union in Gujrat State. A few more units are expected to come up in the

public sector in Andhra Pradesh and Madhya Pradesh, which are proposed to be set up by the respective State Agro-Industries Corporations. It is an emerging technology for production of ready-to-eat foods. Further developments need to be watched before considering creation of fresh capacity in this field.

ROLLER FLOUR MILLING

Present Status

1.1. The Roller Flour Milling Industry is one of the major food processing industries in the country. According to information compiled in December, 1973, there are 230 roller flour mills in the country and the annual installed capacity of these mills is nearly 5941 lakh tonnes. Due to inadequate availability of wheat in the country, the flour mills are not running to their full capacity. In 1975, the capacity utilisation was at 25 per cent of the installed capacity.

1.2. The Roller Flour Mills are grouped into large-scale sector and small-scale sector. No roller flour mill in the large-scale sector can be set up without securing a Licence under the Industries (Development and Regulation) Act, 1951. Any mill working with the aid of power and having 50 or more workers will attract the provisions of this Act. For mills under the small-scale sector, no licence under the Act is necessary for setting up of a roller flour mill. However, no such mill can function unless it is licensed under the Wheat Roller Flour Mills (Licensing & Control) Order, 1957.

1.3. The Flour Milling Industry is regulated by the Wheat Roller Flour Mills (Licensing & Control) Order, 1957. This order prohibits the owner or the person in-charge of a roller flour mill from manufacturing any wheat product except under and in accordance with the terms and conditions of a licence issued under the said order. The licensing authority named under the Order has been empowered to issue directions to the licensee in regard to (i) the source from which and the manner in which wheat shall be obtained for the purpose of manufacture of wheat products, (ii) the production or manufacture of different kinds of wheat products and size of packing and method of packing and the like and (iii) the disposal of wheat products.

1.4. The control functions under the Wheat Roller Flour Mills (Licensing and Control) Order, 1957 have been delegated to the State Governments, with effect from March 1, 1969. The Roller Flour Mills are not permitted at present to purchase wheat from the open market. Wheat is supplied to them by the State Governments out of allocation specifically made to them for the purpose from the Central Pool.

1.5. The production during the last three years in the organised sector was as follows:

<i>Year</i>	<i>No. of units</i>	<i>Annual installed capacity (lakh tonnes)</i>	<i>Annual production of wheat products (lakh tonnes)</i>
1973	147	45.2	19.6
1974	155	48.9	17.5
1975	158	49.9	14.7

Future Scope

2.1. In view of the fact that the capacity of the flour milling industry in the country is much more than what can be utilised at present, the setting up of new roller flour mills or any expansion in the capacity of the existing units is not permitted. Exception is, however, made in the case of States/Union Territories where no roller flour mill is, at present, in existence.

VEGETABLE OILS

VEGETABLE OILS AND VANASPATI

Present Status

1.1. There are 85 vanaspati factories with an installed capacity of 12.65 lakh tonnes per annum. The bulk of the production is in the North and West zones.

1.2. The production of vanaspati during the years 1973-74 and 1974-75 amounted to 4.49 lakh tonnes and 3.52 lakh tonnes respectively. The estimated output during 1975-76 is likely to be around 4.80 lakh tonnes.

Future Scope

2.1. During the year 1975, only one unit in the cooperative sector has been granted licence to put up a vanaspati plant of 5000 tonnes capacity per year. As the licensed and installed capacity are in excess of the anticipated demand by the end of the Fifth Five Year Plan, the present policy is not to augment capacities in the industry.

2.2. One of the outlets for the vanaspati industry, at present, is the production of hardened products from non-edible oils. The Directorate of Sugar and Vanaspati is permitting the hardening of such oils, when the material is required for specific industrial purposes.

COTTON SEED OIL

Present Status

1.1. Cotton seed which has been mainly used as a cattle feed, can yield oil suitable for edible purposes. Looking to the increasing demand for vegetable oils for edible purposes, it is essential that the oil potential of cotton seed is fully exploited and cotton seed is integrated with the oil seed economy of the country. De-oiled cake may be used for cattle feed, without any prejudice to the quality of the feed. Cotton linter could be valuable bye-product of the cotton seed crushing industry, for use in the manufacture of chemical pulp, etc.

1.2. The capacity licensed and capacity covered by letters of intent is 19.10 lakh tonnes and 8.90 lakh tonnes respectively per annum in terms of cotton seed crushed on maximum utilisation of plant and equipment. The present installed capacity of the units registered with DGTD is 13 lakh tonnes of cotton seeds for processing.

1.3. The production of the units for the last three years has been as follows:

Cotton Seed Oil

1973	73,000 tonnes
1974	52,500 tonnes
1975	73,000 tonnes

Linter (Bye-products)

1973	8,700 tonnes
1974	7,200 tonnes
1975	8,000 tonnes

Cotton seed, which is indigenously available, is the primary raw material and no imports are involved.

Future Scope

2.1. No specific target has been fixed for this industry for the Fifth Five-Year Plan. However, based upon the estimates of cotton production by the end of 1978-79, the net availability of cotton seed has been estimated to be of the order of 26 lakh tonnes of which only a part is being exploited for the production of oil. This is being utilised almost entirely in the production of vanaspati. The increased production of this oil would directly result in saving of foreign exchange on imports of oils and fats. Even though it would appear that adequate capacity for crushing of this seed has been covered through approvals given for setting up of cotton-seed crushing units as compared to the anticipated availability by the end of Fifth Plan Period, there are, however, some areas where adequate capacity has not yet been created. There is, therefore, scope for establishing new units on modern lines in the areas where cotton growing is being newly developed and sufficient quantity of cotton seeds is available. Such areas are:

Gujarat, Haryana, Karnataka, Punjab, Madhya Pradesh and Rajasthan.

The issue of licences in this field will, inter alia, be subject to the following conditions:

- (i) Cotton seed shall be delinted and decorticated before crushing.
- (ii) Capacity will not be used for crushing major oil seeds like mustard, rape, ground-nut, linseed and til (sesame).

2.2. Main by-products of this industry are oil cakes

and cotton linters. While the surplus oil cakes have an export potential, linters are used as raw material in the industries, like rayon, plastics and other chemicals. Even though there is potential for the recovery of sixty/seventy thousand tonnes of cotton linters from the cotton seeds available, only a small part of it is being

recovered now. It is, therefore, essential that better recovery of this item is aimed at.

2.3. The equipment for crushing of cotton seeds as also for the extraction of cotton seed cakes is available locally. Delinting machines are also available indigenously. Technology is also available indigenously.

SOAPS

Present Status

1.1. There are, at present, 46 units engaged in the manufacture of soaps in the organised sector with an installed capacity of 226,418 tonnes per annum. A further capacity of 72,00 tonnes per annum has been licensed and a capacity of 19,400 tonnes per annum is covered by a letter of intent.

1.2. The production during the last three years was as under:

1973	235,000 tonnes
1974	222,900 tonnes
1975	269,000 tonnes

Future Scope

2.1. The draft Fifth Plan target for production of

soap in the organised sector has been put at 340,000 tonnes by 1978-79. Laundry soap has been reserved for development in the small scale sector. Creation of additional capacity for toilet soap will be considered on merits in the regions where there is no toilet soap capacity. Such areas could include Jammu and Kashmir, Himachal Pradesh, Gujrat, Madhya Pradesh, Rajasthan, Bihar, Eastern Uttar Pradesh, Orissa, Andhra Pradesh, Assam and other hill States.

2.2. A standard modern toilet soap plant of economic size and having facilities for recovering by-product glycerine, is reckoned at 7200 tonnes per year. Setting up of such a unit is likely to involve an investment of Rs. 80 to 90 lakhs, of which the cost of plant and machinery may be between Rs. 60 to 70 lakhs.

RUBBER GOODS

BYCYCLE TYRES

Present Status

1.1. There are, at present, 19 units with an installed capacity of 325.6 lakh tyres in the organised sector. Additional capacity covered by industrial licences and letters of intent is 46.10 lakh numbers each of bicycle tyres and tubes per annum.

1.2. The production in the organised sector during the last 3 years was as under:

	<i>Tyres</i>	<i>Tubes</i>
1973-74	245 lakh nos.	175 lakh nos.
1974-75	252 lakh nos.	136 lakh nos.
1975-76	300 lakh nos.	250 lakh nos.

Besides, there are more than 70 units in the small scale sector. Their capacity is estimated to be of the order of 520 lakh numbers of tyres and 770 lakh numbers of tubes per annum.

1.3. Export has been gradually increasing. Export of tyres and tubes during the last 3 years has been as under:

	<i>Tyres</i>		<i>Tubes</i>	
	<i>nos.</i>	<i>Rs. lakhs</i>	<i>nos.</i>	<i>Rs. lakhs</i>
1972-73	944,326	48.78	689,027	17.89
1973-74	103,4291	62.76	12,23,995	31.46
1974-75	11,48,989	81.32	15,09,205	50.05

Future Scope

2.1. Bicycle tyres and tubes industry has been reserved for the Small Scale sector since 1970. The Task Force on Rubber Products had estimated the capacity requirement for bicycle tyres and tubes as 600 lakh nos. each relative to a demand of 500 lakh nos. each by the end of Fifth Plan. Taking into consideration the capacity already installed in the organised sector as well as in the small scale sector, there is no scope for creation of additional capacity for bicycle tyres and tubes.

AUTOMOBILE TYRES AND TUBES

Present Status

1.1. There are, at present, 13 units engaged in the manufacture of automobile tyres and tubes with an installed capacity of 69.49 lakh nos. each per annum.

Additional capacity licensed/approved (covered by letters of intent) is of the order of 90.3 lakh nos.

1.2. Production of automobile tyres and tubes during the last three years was as under:

	<i>Tyres</i>	<i>Tubes</i>
1973-74	52.41 lakh nos.	47.74 lakh nos.
1974-75	54.54 lakh nos.	46.69 lakh nos.
1975-76	60.00 lakh nos.	55.00 lakh nos.

1.3. Export of automobile tyres and tubes during the last three years was as under:

1972-73	Rs. 493.46 lakhs
1973-74	Rs. 643.41 lakhs
1974-75	Rs. 928.05 lakhs

Future Scope

1.4. Due to the oil crisis and other constraints, there has been a set back in the production of petrol driven vehicles. This has resulted in lowering the demand for tyres and tubes. According to the revised estimates, the demand for automobile tyres and tubes by the end of 1978-79 would be of the order of 90 lakhs nos. each. However, demand by the year 1980-81, that is, during the first two years of the Sixth Plan is estimated to be of the order of 100 lakh nos. The various schemes under implementation are expected to yield an additional capacity of about 50 lakh nos. each of tyres and tubes. Thus the total capacity likely to become available by the end of 1980-81 would be about 120 lakh nos., which would take care of the demand in the country not only for the Fifth Plan but also for the first two years of the Sixth Plan. There is, therefore, no scope for licensing additional capacity for automobile tyres and tubes during the year.

FOOTWEAR (RUBBER)

Present Status

1.1. There are, at present, 17 units in the organised sector engaged in the production of rubber and canvas footwear with an installed capacity of 570 lakh pairs per annum. Letters of intent have been issued for an additional capacity of 5.9 lakh pairs per annum. The capacity of the small scale units is reported to be of the order of 150 lakh pairs per annum.

1.2. The production in the organised sector during the last three years was as under:

1973-74	388 lakh pairs
1974-75	372 lakh pairs
1975-76	420 lakh pairs

1.3. Rubber footwear has a good export potential. Currently the annual level of exports is around Rs. 4 crores.

Future Scope

2.1. The Task Force on Rubber Products had estimated the requirement of Rubber and Canvas Footwears (including the export requirement) by the end of 1978-79 as 1,000 lakh pairs per annum. As against this, the total installed/licensed capacity in the organised sector is of the order of 570 lakh pairs and about 150 lakh pairs in the small scale sector, totalling to about 720 lakh pairs. Thus there is scope for licensing of further capacity in this field. Proposals for setting up of new units and expansion of existing units involving substantial exports would be considered on merits.

RUBBER CONVEYOR BELTS, TRANSMISSION BELTS AND PVC BELTS

1.1. Conveyor belts are used in conveying materials in mines, harbours, construction projects, etc and in various industries. Transmission belts are used for transmission of power. PVC conveyor belts are exclusively used in underground coal mines for conveying coal since they are required to be fire resistant.

Present Status

1.2. There are at present 5 units in the organised sector engaged in the manufacture of rubber conveyor belts and 4 units for the manufacture of transmission belting and two units for the manufacture of PVC conveyor belting, with an installed capacity of 4810 tonnes, 3700 tonnes and 116,020 metres respectively. The production of these belts during the last 3 years was as under:

	<i>Conveyor Belts</i>	<i>Transmission Belts</i>	<i>PVC Conveyor Belts</i>
1973-74	3722 tonnes	3225 tonnes	74,707 metres
1974-75	4098 tonnes	3096 tonnes	55,319 metres
1975-76	4600 tonnes	2500 tonnes	100,000 metres

1.3. There are a few units in the small scale sector for

the manufacture of conveyor belts with an installed capacity of about 1,000 tonnes. There are also several units for the manufacture of transmission beltings.

Future Scope

Rubber Conveyor Belting

2.1. The Task Force on Rubber Products had estimated the demand for rubber conveyor belting by the end of 1978-79 as 9,000 tonnes. To achieve this production, the Task Force has suggested for creation of a capacity of 10,000 tonnes. Additional licensed/approved and registered capacity is of the order of 27,935 tonnes. Since adequate capacity has been approved for this item, there is no scope for considering fresh capacity during the year.

Transmission Belting

2.2. The Task Force on Rubber Products had estimated the demand for transmission belting at 6,000 tonnes by the end of 1978-79. As against this, the total installed and additional capacity approved is of the order of 5,000 tonnes.

In addition, there are several units in the small scale sector. Having regard to this position, the total capacity is adequate to meet the anticipated demand. There is no scope for approving additional capacity for transmission belting.

P.V.C. Belting

2.3. The demand for PVC belting is estimated to be of the order of 3 lakhs metres by the end of 1978-79. As against this, the installed capacity is of the order of 116,000 metres. Additional capacity to the extent of 70,000 metres has already been approved. Thus, the total installed/approved capacity is 186,000 metres. There is scope for creation of additional capacity to the extent of about 114,000 metres to meet the increased demand by the end of 1978-79.

3.1. Having regard to the fact that excess capacity has already been approved for rubber conveying beltings, it is felt that the existing manufacturers of rubber conveyor belting and also holders of letters of intent and industrial licences for rubber conveying belts can conveniently take up the manufacture of PVC conveyor beltings also and set up economically viable units. Keeping this in view, the rubber conveyor belts manufacturers may diversify and take up the manufacture of PVC conveyor belting. Applications from the entrepreneurs who have experience in the line of beltings may also be considered on merits.

LEATHER AND LEATHER GOODS

LEATHER FOOTWEAR

Present Status

1.1. Leather footwear is an important labour intensive industry, a considerable part of the production taking place in the cottage and small sectors which accounts for nearly 1800 lakh pairs. There are 8 units in the organised sector having an installed capacity of 233 lakh pairs per annum. An additional capacity of 78 lakh pairs is covered by letters of intent. Most of this capacity is likely to be implemented by 1978-79.

1.2. The production of footwear in the organised sector during the last three years was as under:

1972-73	139 lakh pairs
1973-74	146 lakh pairs
1974-75	138 lakh pairs

The overall utilisation of capacity during these years has been of the order of 60 per cent.

1.3. The import of leather footwear is banned. Exports during the last 3 years were as follows:

Exports

1972-73	75 lakh pairs	Rs. 978.26 lakhs
1973-74	79 lakh pairs	Rs. 1041.85 lakhs
1974-75	100 lakh pairs	Rs. 1396.28 lakhs

Future Scope

2.1. Further development of leather footwear industry is reserved for small scale sector. There is, therefore, no scope for creation of additional capacity in the organised sector, except for expansion of existing units and establishment of new units exclusively for exports. In order to achieve the production target of 3000 lakh pairs of leather footwear during the Fifth Plan Period, there is scope for setting up of 25 mechanised footwear units each with a capacity of 10 lakh pairs per annum mainly for export. There is also scope to set up 500 semi-mechanised footwear units in the small scale sector in order to meet indigenous demand and also for export.

2.2. The main raw material for footwear industry is finished leather which is available from indigenous sources. Small quantities of shoe grindery and shoe dressing materials are required to be imported.

GLASS

SHEET GLASS

Present Status

1.1. There are 7 units engaged in the manufacture of sheet glass with an annual installed capacity of 270 lakh sq. mtrs. An additional capacity of 232.5 lakh sq. mtrs. per annum is covered by industrial licences/letters of intent, which are likely to materialise by the end of the Fifth Five Year Plan, thus raising the installed capacity to 502.5 lakh sq. mtrs.

1.2. The production of sheet glass during the last three years was as under:

1973	165 lakh sq. mtrs.
1974	152 lakh sq. mtrs.
1975	143 lakh sq. mtrs.

1.3. Import of sheet glass is restricted to thickness below 0.8 mm and above 7.5 mm. and is negligible. Exports of sheet glass during the last three years were as under:

1972-73	Rs.30.06 lakhs
1973-74	Rs.33.35 lakhs
1974-75	Rs.84.50 lakhs

1.4. Besides plain sheet glass, wired and figured glass is also being manufactured by 3 units with an installed capacity of 37.5 lakh sq. mts. per annum. An additional capacity of 2.6 lakh sq.mts. has been approved. Production of wired glass and figured glass during 1975 is estimated at 34 lakh sq. mts. Exports of wired and figured glass during 1974-75 were of the order of Rs.24 lakhs.

Future Scope

2.1. The demand for sheet glass has been assessed by the Task Force for Glass and Ceramics Industry at 300 lakh sq. mts. per annum by 1978-79 requiring a capacity of 400 lakh sq. mts. The existing capacity and the additional capacity expected to materialise is adequate to meet the likely demand by 1978-79. There is thus no further scope at present for additional capacity in this field.

2.2. There is a shift from the fourcault process to PPG process which produces better quality sheet glass. Bulk of the new schemes approved are for manufacture of sheet glass by PPG process and Colborn-Cleverbal

process which are suitable for manufacturing sheet glass between 1 mm. and 20 mm. thickness.

2.3. The main raw materials viz. soda ash, dolomite, limestone and sodium sulphate are available indigenously. The only imported raw material required is arsenic tri-oxide.

2.4. Furnace oil, which is being imported at present, is one of the inputs required for operating the furnaces. It is not essential to use oil firing process in sheet glass manufacture, and producer gas firing can replace oil firing, particularly in the case of units located near coal-fields. Some sheet glass factories are already operating on coal.

3.1. Safety glasses are also being manufactured from sheet glass and from imported plate glass in the organised sector. Production of mirrors of superior quality is also being taken up in the organised sector by 3 manufacturers making safety glasses.

3.2. During 1975, the production of items made out of sheet glass was as under:-

Laminated Glass	1,86,000 sq. mts.
Toughened Glass	2,44,000 sq. mts.
Mirrors	1,45,800 sq. mts.

3.3. Exports of these items during 1974-75 were as under:-

Laminated Glass and	
Toughened Glass	Rs. 25 lakhs
Mirrors	Rs. 14 lakhs

GLASS BOTTLES

General

1.1. Glass bottles are required mostly for packing of drugs and pharmaceuticals, milk, brewery, distillery and soft drinks. The use of automatic bottling and capping machines in these industries has created a substantial demand for bottles made on automatic machines.

Present Status

2.1. There are 21 units engaged in the manufacture of glass bottles with an additional capacity of 2,78,600 tonnes per annum. An additional, capacity of 3,35,580 tonnes is covered by industrial licences/letters of intent /registration with Directorate General of Technical Development. Out of this, a capacity of about 1,60,000

tonnes is likely to materialise by the end of the Fifth Five Year Plan, thus raising the installed capacity to 4,38,600 tonnes per annum.

2.2. The production of glass bottles during the last three years was as under:

1973	2,02,000 tonnes
1974	2,03,000 tonnes
1975	2,05,000 tonnes

2.3. There are no imports of glass bottles. Exports of glass bottles during the last three years were as under:

1972-73	Rs. 74.45 lakhs
1973-74	Rs. 143.14 lakhs
1974-75	Rs. 176.00 lakhs

Future Scope

3.1. The demand for glass bottles had been assessed by the Task Force for Glass and Ceramic Industry at 3,00,000 tonnes per annum by 1978-79 for which a capacity of 4,00,000 tonnes would be required. The present installed capacity and the additional capacity likely to materialise is considered adequate to meet the expected demand by 1978-79. There is no scope at present for further licencing of capacity in this field. However, due to the fragile and bulky nature of the product and the problems of transportation over long distances, fresh schemes can be considered on merits in the States where there are no glass factories and in backward areas. Export-oriented schemes can also be considered on merits.

3.2. The know-how required for setting up glass units is available indigenously. There are 4 firms manufacturing automatic bottle making machines in the country with enough capacity to meet the demand of glass industry. One of the main inputs for operating glass furnaces is furnace oil which is being presently

imported. Producer gas firing can also be adopted in the case of units located near coal fields.

FIBRE GLASS

General

1.1. Fibre Glass finds application in a number of areas such as electrical insulation, reinforced paper, rubber and thermo-plastic products, reinforced concrete, gypsum products, curtains, fabric and protective screens. Fibre Glass can also replace asbestos fibre and asbestos cement products. Fibre glass also finds application in the form of glass fibre reinforced plastics.

Present Status

2.1. There is at present only one unit in the country engaged in the manufacture of fibre glass with a licensed capacity of 1,000 tonnes per annum. The production of fibre glass during the last three years was as under:

1973	621.99 tonnes
1974	651.85 tonnes
1975	426.00 tonnes

An additional capacity of 25,800 tonnes per annum has been approved.

Future Scope

3.1. The demand for fibre glass has been estimated by Directorate General of Technical Development at 15,000 tonnes per annum by 1978-79, requiring a capacity of 20,000 tonnes per annum. The progress of implementation of the approved schemes will be watched before considering licensing of additional capacity.

3.2. The question of centralised import of technology for the manufacture of this item through the National Industrial Development Corporation is being considered.

CERAMICS

REFRACTORIES

1.1. Refractory is an important feeder industry meeting the requirements of core industries like Iron and Steel, Fertilisers, Chemicals, etc. The demand trend is for refractories to withstand higher temperatures and has necessitated change of production from ordinary refractories to high heat duty refractories.

Present Status

2.1. Refractories are classified as acidic, basic and neutral. There is adequate capacity for general range of refractories. The industry is both in the medium scale as well as in the small scale sector. There are 50 units with a capacity of 14 lakh tonnes borne on the list of DGTD. An additional capacity of 4 lakh tonnes is in the small scale sector. The utilisation of capacity in the industry is around 50 per cent which is mainly due to the changed pattern of demand from low heat duty to high heat refractories.

2.2. The indigenous production falls short of demand and the level of imports during 1974-75 was around Rs. 150 lakhs. The types of refractories which are presently being imported are high alumina, special shapes, electrocast refractories, carbon refractories and special types of mortars and castables.

2.3. There are potentialities of exports, which have gone up from Rs. 28 lakhs in 1972-73 to around Rs. 90 lakhs in 1974-75.

Future Scope

3.1. Iron and Steel industry being the larger consumer, the development of refractory industry is linked up with the programme of expansion of steel industry. Considering the possible changes in steel technology and taking into account the potential for utilisation of existing capacity as also the possibilities of meeting exports, the future scope for creating additional capacity for basic categories of refractories is as follows:

(in thousand tonnes)

	<i>Estimated demand 1978-79</i>	<i>Available Capacity 1975-76</i>	<i>Production envisaged from existing units</i>	<i>G A P Production</i>	<i>P Capacity</i>
<i>Fireclay Refractories</i>					
High grog/high alumina	262	300	203	59	—
Low Grog	211	220	152	59	157
Plastic process	203	500	350	—	—
Total:	676	1020	705	118	157
<i>Silica Refractories</i>					
Coke Oven	32	60	40	—	12
Others	55	65	46	9	—
Total:	87	125	86	9	12
<i>Basic Refractories</i>					
Burnt	117	125	88	29	37
Chemically bonded	40	65	48	—	—
Total:	157	190	136	29	37
GRAND TOTAL:	920	1335	927	156	206

3.1. The modern trend is to specialise in particular varieties of refractories and the minimum economic unit is reckoned at 30,000 tonnes per annum requiring an investment of about Rs. 300 lakhs.

3.3. The raw materials for manufacture of refractories, namely, fireclay, bauxite, chromite, kyanite, magnesite as also fused grains namely, white aluminium oxide and mullite are available indigenously. The technology for manufacture of general types of refractories is also available in the country.

3.3. A number of equipments for batch handling, fabrication of bricks and firing are available locally. The sophisticated high duty presses which are presently being imported are likely to be produced by 1977, when the industry will be self-reliant.

4.1. For setting up additional capacity, emphasis will be on:

- (a) expansion of existing factories to economic levels of production, diversification and improvement in quality;
- (b) the development of new products such as Monoliths, High Alumina Refractories, Coke Oven Silica Bricks, Electrocast Refractories, Hot Face Insulation, Tar-impregnated Basic Refractories, Alumina and Zirconia, Special Ramming Masses, Super Refractories and other Speciality products which are in short supply and can sustain an economic unit;
- (c) proposals for additional capacity should preferably be based on detailed project and feasibility studies. The particular study should indicate availability of scarce materials like sillimanite, kyanite, etc.
- (d) foreign collaboration can be considered on merits for special types of refractories.

HIGH TENSION INSULATORS

General

1.1. These are special ceramic products used in electric power generation and distribution. The State Electricity Boards are the bulk purchasers of H.T. insulators. The other consumers are the manufacturers of switchgear, transformers, circuit breakers, lightening arresters, etc. and the Railways for their electrification programmes. L.T. insulators, which are mostly used by the Posts and Telegraphs Department, are reserved for the small scale sector.

Present Status

2.1. There are 7 units manufacturing H.T. insulators with a total licensed capacity of 27,200 tonnes per annum and an installed capacity of 26,000 tonnes per annum. An additional capacity of 32,800 tonnes per

annum has been approved. Out of this, a capacity of about 10,000 tonnes is expected to materialise by the end of the Fifth Five Year Plan, raising the installed capacity by 1978-79 to 36,000 tonnes per annum.

2.2. The production during the last three years was as under:

1973	19,270 tonnes
1974	17,850 tonnes
1975	16,620 tonnes

The production in 1975 was low partly since one of the major units was closed.

2.3. H.T. insulators of extra high voltage, viz. above 220 KV and certain special types are not being manufactured in the country. The annual imports and exports of insulators during the last three years were as under:-

	<i>Imports</i>	<i>Exports</i>
1972-73	Rs. 52.0 lakhs	Rs. 12.0 lakhs
1973-74	Rs. 134.0 lakhs	Rs. 13.0 lakhs
1974-75	Rs. 129.0 lakhs	Rs. 32.2 lakhs

Future Scope

3.1. The growth of demand for H.T. insulators is closely linked with power development programmes in the country. According to the Task Force for Ceramic Industries, the demand for H.T. insulators is expected to go up to 40,500 tonnes per annum by 1978-79, requiring an annual capacity of about 45,000 tonnes. Having regard to the installed capacity and the progress of the schemes under implementation, there is scope for licensing of additional capacity during 1976-77.

3.2. The minimum economic size of a unit is assessed as 6,000 tonnes per annum. A unit of this size will involve an investment of about Rs. 2.50 crores. A major portion of the plant and equipment for the manufacture of H.T. insulators is available indigenously. Expansion to economic capacities would be preferred. Location of proposed new units would be preferred in northern and western regions of the country as there are no units in these areas.

3.3. All the major raw materials are available indigenously except ball clay of high plasticity required for the manufacture of insulators of extra high voltages.

SANITARYWARE

Present Status

1.1. There are 7 units engaged in the manufacture of sanitaryware with an installed capacity of 20,630 tonnes per annum. An additional capacity of 16,700 tonnes per annum has been approved. Of this, a capacity of about 13,100 tonnes is expected to materialise by the end of

the Fifth Five Year Plan, raising the installed capacity of 33,730 tonnes per annum.

1.2. The production during the last 3 years was as follows:

1973	16,060 tonnes
1974	16,050 tonnes
1975	18,570 tonnes

1.3. There are no imports of sanitaryware. Exports of sanitaryware during the last three years were as under:

1972-73	Rs. 21.3 lakhs
1973-74	Rs. 43.0 lakhs
1974-75	Rs. 53.5 lakhs

There is a good export potential for sanitaryware to the Middle East and East African countries.

Future Scope

2.1. The demand for sanitaryware by 1978-79 has been estimated to be of the order of 34,200 tonnes requiring a capacity of about 40,000 tonnes per annum. There is scope for creating additional capacity in this industry, particularly for the manufacture of quality sanitaryware required for export.

2.2. The minimum economic size of a unit is assessed at 5,000 tonnes per annum involving an investment of about Rs. 2 crores. The major portion of plant and equipment for the manufacture of sanitaryware are available indigenously. Expansion of existing units to economic size would be preferred. Location of proposed new units would be preferred in the eastern region of the country as there is no unit in this area.

GLAZED TILES

Present Status

1.1. There are 5 units engaged in the manufacture of glazed tiles with an installed capacity of 42,020 tonnes per annum. An additional capacity of 15,400 tonnes per annum is covered by letters of intent/registration with DGTD. Out of this, a capacity of about 15,100 tonnes is expected to materialise by the end of the Fifth Five Year Plan, thus raising the installed capacity to 57,120 tonnes per annum.

1.2. The production during the last three years was as under:

1973	26,780 tonnes
1974	29,100 tonnes
1975	24,470 tonnes

The fall in production during 1975 is mainly due to

the closure of one of the major units for 5 months.

1.3. Imports of glazed tiles are negligible. Exports of glazed tiles during the last three years were as under:

1972-73	Rs. 5.2 lakhs
1973-74	Rs. 4.8 lakhs
1974-75	Rs. 11.2 lakhs

Future Scope

2.1. The demand for glazed tiles has been assessed at 65,700 tonnes per annum by 1978-79, requiring a capacity of about 76,000 tonnes. There is scope for creating additional capacity in this industry, particularly for export.

2.2. The minimum economic size of a unit is assessed as 5,000 tonnes per annum involving an investment of about Rs. 1.25 crores. A major portion of plant and equipment for the manufacture of glazed tiles is available indigenously. Expansion of existing units to an economic size would be preferred. Location of proposed new units would be preferred in eastern and southern regions of the country, as there is no unit in these areas.

CROCKERY

1.1. Crockery is a useful substitute for utensils made of stainless steel and non-ferrous metals, which have to be imported.

Present Status

1.2. There are 14 units in the organised sector engaged in the manufacture of all grades of crockery with a total installed capacity of 32,150 tonnes per annum. An additional capacity of 13,250 tonnes per annum is covered by industrial licences/letters of intent/registration with DGTD, which is still to be implemented. On present assessment, a total effective capacity of 43,550 tonnes is likely to materialise during the next 3-4 years.

1.3. The production during the last three years was as under:

1973	16,700 tonnes
1974	15,850 tonnes
1975	13,340 tonnes

The production in 1975 has been low as one of the major units remained closed. Further, there is substantial production of crockery of common grades in the small scale sector.

1.4. Imports and exports of crockery are small. Only sophisticated crockery of special designs is occasionally imported by the luxury hotels and restaurants for the entertainment of their foreign customers. Exports are

small as the quality of Indian crockery is not of international standards.

Future Scope

2.1. The Task Force had estimated the demand for crockery by 1978-79 at 54,000 tonnes. There is scope for licensing additional capacity in the industry for the manufacture of superior quality crockery, suitable for exports.

2.2. All the raw materials except ball clay of the requisite grade are available in India. Most of the machinery requirements can also be met from within the country. Some automatic machines have to be imported.

2.3. An economic 3,000 tonnes per annum unit would involve an investment of about Rs. 2 crores.

CEMENT AND GYPSUM PRODUCTS

CEMENT

Present Status

1.1. There are 54 units in production with a total installed capacity of 211.60 lakh tonnes per annum. The production of cement in the last three years was as follows:-

1973	148.9 lakh tonnes
1974	142.6 lakh tonnes
1975	163.0 lakh tonnes

1.2. Nearly two-thirds of the production is based on wet process and the balance on dry process. The present trend in the industry is towards dry process as it results in economy of fuel.

1.3. The production and supply of cement in the Northern and Eastern Zones of the country continues to be inadequate.

1.4. Capacity approved till December, 1975 additionally to existing 211.60 lakh tonnes is as follows:-

Public Sector	83.86 lakh tonnes
Private Sector	117.49 lakh tonnes
Total:	201.35 lakh tonnes

1.5. Out of the approved projects, additional capacity expected to materialise by the end of 1977-78 is of the order of 15 lakh tonnes.

Future Scope

2.1. In the draft Fifth Plan document, the target of production during 1978-79 has been placed at 250 lakh tonnes corresponding to a capacity of 290 lakh tonnes.

As some of the approved schemes may not materialise and new projects in the industry have a long gestation period, there is scope for licensing more capacity, with reference to long-term requirements.

2.2. The following aspects should be taken into account in working out proposals for additional capacity:

- (a) Utilisation of low grade limestone after beneficiation, especially in deficit areas, would be encouraged.
- (b) Having regard to the implications of transport of cement over long distance, proposals for locating clinker grinding capacity near the centres of demand, on the basis of movement of clinker from locations

which have advantage of raw materials etc. will be considered.

(c) Proposals for additional capacity should cover detailed information regarding the quality and extent of limestone deposits. Entrepreneurs are, therefore, advised to consult in the first instance, the State Mining Deptt., Geological Survey of India and other concerned Organisations regarding limestone surveys.

(d) Import of cement machinery is not permitted.

(e) There is saving in coal consumption to the extent of 27 per cent in the dry process as compared to the wet process. The choice of process is also dependent upon other factors such as the quality of lime stone and availability of water. Wherever possible and economic, it is suggested that dry process may be adopted.

(f) The standard capacity of cement plants has been 1000-1200 tonnes per day but in special location depending upon the availability of limestone and other factors, smaller capacity of about 600 tonnes per day would be considered. There is considerable potential for export of cement to the neighbouring countries. Proposals for large coastal plants mainly geared for exports would be considered on merits.

(g) Installation of small units will be encouraged for locations having small deposits of limestone and having limited demand. Special consideration will be given to proposals aimed at (i) locating cement capacity in deficit areas; (ii) utilisation of industrial wastes like blast furnace slag and fly ash; (iii) rationalisation of location on the basis of split-locations, wherever feasible; (iv) reduction in the incidence of packing cost by resorting to bulk distribution of cement and supply of ready-made concrete mixtures; (v) maximisation of production out of the existing facilities by technological improvements and conversion from wet to dry process.

2.3. There is no need for foreign collaboration in this industry.

ASBESTOS AND ASBESTOS CEMENT PRODUCTS

1.1. These items may be broadly classified into two categories, namely, (a) Asbestos Cement products such as sheets & accessories and pressure pipes, and (b) asbestos products such as textiles, packings & jointings.

1.2. The first category of products are manufactured from a mixture of asbestos fibre and portland cement

(asbestos content being 10% in the case of asbestos cement sheets and 15% in the case of pressure pipes) while the second category of products are manufactured almost entirely from asbestos fibre.

1.3. Asbestos fibre of the grade used in this industry is available indigenously in limited quantities and for most of its requirements, the industry depends upon imports. This constitutes a major constraint on the development of additional capacity in this field.

1.4. The plant and machinery as well as the technology required for production of asbestos cement sheets and pressure pipes is available indigenously.

ASBESTOS CEMENT SHEETS & ACCESSORIES

Present Status

2.1. There are, at present, 11 units manufacturing asbestos cement sheets with a total installed capacity of 637,000 tonnes. Production during 1974 and 1975 was 423,400 tonnes and 467,000 tonnes respectively. No imports of these products are permitted.

Future Scope

3.1. Due to constraint on foreign exchange availability and difficulty in obtaining raw material, there is no scope for setting up of additional capacity.

3.2. Asphaltic corrugated roofing sheets can substitute asbestos cement sheets for different uses such as low-cost housing, school buildings, factory sheds, poultry farming, touring cinema houses, etc. During last 5-7 years, the production of such substitutes has gone up from Rs. 17 lakhs to Rs. 90 lakhs. The raw materials required are waste paper, asphalt, aluminium and solvent. In place of paper pulp, chemical pulp can be introduced which improves the quality of the end product. It is a light weight material and approximately 10 sq. ft. of corrugated sheets weigh between 3.5 kgs. and 4 kgs. The life of the sheets is around 10 years. The economic size of the plant is 5,000 tonnes per annum and the investment is reckoned at Rs. 15 lakhs.

3.3. In view of the growing demand and as the entire machinery and raw materials are primarily available from indigenous sources, well conceived schemes for manufacture of asphaltic sheets can be considered on merits.

ASBESTOS CEMENT PRESSURE PIPES

4.1. These pipes are used for distribution of water in urban and rural areas as well as in drainage, sewerage and irrigation systems.

Present status

4.2. There are three units engaged in the manufacture of this item with a total installed capacity of 1,02,000 tonnes. Production during 1974 and 1975 was 60,000 tonnes and 75,900 tonnes respectively. A further capacity of 30,000 tonnes has been approved.

Future Scope

5.1. There are substitutes for asbestos pressure pipes, namely cast iron pipes, reinforced concrete pipes, PVC pipes. These substitutes do not need any imported raw materials while asbestos pressure pipes need imported asbestos fibre. Having regard to the constraint on account of imported raw materials, there is no scope for further licensing in this industry during 1976-77.

OTHER ASBESTOS PRODUCTS LIKE TEXTILES, PACKINGS, JOINTINGS AND MILL BOARDS

Present Status

6.1. These products are important inputs for engineering industries, in particular automobiles and boilers and as an insulation material.

6.2. Asbestos textiles are manufactured in the form of yarn, cloth, rope, logging and mattresses from asbestos fibre. They are used for packing, sealing, thermal insulation and in chemical industries. The existing annual installed capacity is 2,250 tonnes and utilisation is about 80%. As jointing sheets, they find wide application in chemical and mechanical industries, where leakage of fluid has to be stopped or sealed under various pressures and temperatures. A popular application is as automobile gaskets. The installed capacity for asbestos jointing sheets is 4,350 tonnes and the capacity utilisation is around 70%. Asbestos mill board has wide application as thermal insulation material and is used in domestic cookers, irons, industrial and laboratory furnaces. The present installed capacity is 1,100 tonnes and there is full utilisation of capacity.

Future Scope

6.3. In view of the growing demand for these items, well-conceived schemes would be considered on merits.

INSULATING MATERIALS

INSULATING MATERIALS

1.1 In the wake of high cost of fuel, in particular furnace oil, the use of insulating materials for high temperature applications has gained significance. The property required from insulating material is to reduce heat transmission. The rate at which there is heat loss depends upon the temperature of the exposed outer surface in relation to its surrounding temperature. Insulation is effected by providing a layer of material having low heat conductivity between the internal surface of the item of equipment to be insulated or furnace and the external surface.

The choice of the insulating material depends upon the effectiveness with which it is required to operate and upon the temperature that it will withstand. Such materials can be divided into groups according to the temperature at which they have to be used. Broad classifications would be as follows:—

Low temperature range—below 90°C

1.2. The areas covered are refrigeration, building construction, cold storage, air conditioning, cool water system, storage tanks, buildings and the like. The commonly used materials for insulation are cork, wood, pulp board, straw board, charcoal, sponge rubber, mineral fibre and aluminium foils.

Medium temperature range—90°C to 375°C

1.3. The application is for power stations, steam raising and low temperature heating including boilers, steam lines, hot air system, flue gas ducting, turbines and cylinders. The materials used are magnesia asbestos, other magnesia compositions, slag/glass wool, felted asbestos, asbestos mattresses and mill board in various manufactured forms.

Moderately High Temperature Range—325°C to 650°C

1.4. These are used in super-heated steam plant, ovens, stoves and diesel engine exhausts. The choice of insulating materials is limited to asbestos upto 450°C, spun glass upto 480°C and for higher ranges diatomite asbestos compositions and calcium/magnesia are applied.

High temperature Range—600°C and above.

1.5 High temperature insulation is generally required in industrial furnace practice and carbonisation, typical applications being kilns, heat-treating furnaces, regenerative stoves, hot blast mains, gas producers and coke ovens. In this category, only refractory materials are used which are generally of three types, viz., products from diatomaceous earth and vermiculite and

the type known as hot face insulation, usually made from refractory base such as fireclay or silica.

Present Status

1.6 Certain amount of selectivity of insulating material in the above ranges is possible. For techno-economic considerations, however, it is desirable to use appropriate insulation materials as classified above. In the low temperature range with the exception of cork which is based on 100% imported material, the rest of the items can be manufactured with locally available raw materials. There is adequate capacity for insulation material required for low temperature range.

Future Scope

2.1 For medium and moderately high temperature ranges, schemes for manufacture of foam glass, foam concrete, asbestos magnesia lagging will be considered on merits.

FOAM GLASS

2.2. This has a unique property of light weight combined with rigidity and moderate strength with high insulation efficiency. Being incombustible, heatproof and impervious to moisture and vapour, it does not deteriorate. It is widely used as an insulation material in petro-chemical, fertiliser and cold storage industries. The raw materials required for its manufacture are broken glass and carbon black which are indigenous. The items of machinery like grinding and crushing equipment, curing furnaces can be fabricated with indigenous know-how. The imported components would be restricted to heat-resisting stainless steel for making moulds. The technology for manufacture is available through National Research Development Corporation. The overall investment for an economically viable unit of 10 tonnes per day is reckoned at Rs. 50 lakhs.

There is no production of foam glass and the entire requirements of nearly Rs. 50 lakhs per year are being met through imports.

Foam Concrete

2.3. The other names of foam concrete are cellular concrete and aerated concrete. It is the lightest form of concrete available in various densities and finds extensive use as light weight insulation for partition blocks and when reinforced it can be used as cladding walls and roofing slabs.

There are at present two units with combined annual

capacity of 2.3 lakh cubic metres. The main raw materials, viz., cement, sand, flyash, aluminium powder, gypsum and steel are available indigenously. The plant and equipment which comprises of material handling equipments like conveyors, elevators and moulding and cutting machines can be manufactured indigenously. The overall investment for an economically viable plant of one lakh cubic meters is estimated at Rs. 300 lakhs out of which Rs. 100 lakhs would be for plant and machinery. It is a new product and its market is likely to develop on account of construction of high buildings.

Calcium/Magnesia Lagging

2.4. The product in rigid form like moulded sections and blocks is used as an insulation material in power stations, fertiliser factories, refineries and chemical industries. There is only one unit in the organised sector with an annual capacity of 4000 tonnes. The raw materials required are asbestos fibre (imported) and lime, china clay, sodium silicate which are indigenous. Technology and equipment is available indigenously. The investment for a unit of 4000 tonnes is around 40 lakhs.

Mica Bricks

2.5. There are two units in the small scale sector. The

raw materials are available indigenously. The technology is available through N.R.D.C. The plant and equipment can also be fabricated with indigenous know-how. The investment for an economically viable unit of 2500 tonnes per annum is around Rs. 30 lakhs.

Vermiculite

2.6. It is a naturally occurring mineral which, when heated expands several times its original volume. Being a light weight material, it has high thermal insulation. The know how for its manufacture is available through N.R.D.C. Plant and equipment can also be manufactured with indigenous know-how. Investment for an economically viable unit of 3000 tonnes per year is reckoned at Rs. 50 lakhs.

Hot Face Insulation

2.7. For insulation at high temperature, refractories based on fireclay and silica with burnt out sand dust is considered as an ideal material for kilns, regenerative stoves, hot blast mains, coke ovens, etc. There is limited production of hot face insulations in the country. The plant and equipment can be designed and fabricated locally. The raw materials are available indigenously and the investment for an economically viable unit of 3000 tonnes per annum capacity is of the order of Rs. 50 lakhs.

TIMBER PRODUCTS

PLYWOOD

Present Status

1.1. There are 33 units with approved capacity of about 468 lakh sq. metres; additional capacity of 334 lakh sq. metres is covered by letters of intent/registration with the DGTD. This industry is located mainly in the States of Assam, West Bengal, Kerala and Karnataka.

1.2. Production of plywood during the last three years was as follows:

1973	336.29 lakh sq. metres
1974	356.38 lakh sq. metres
1975	330.00 lakh sq. metres

1.3. Imports of plywood during the last three years have been negligible. Exports have been as follows:

1972-73	Rs. 94.29 lakhs
1973-74	Rs. 443.31 lakhs
1974-75	Rs. 702.66 lakhs

1.4. The main raw materials required for the plywood industry are timber and synthetic resins like urea formaldehyde and phenol formaldehyde. Both the raw materials are available in adequate quantities within the country.

Future Scope

2.1. It is estimated that by 1978-79 the requirements of plywood would be of the order of 600 lakh sq. metres. Additional capacity will be achieved through expansion of the existing plants and by location of new units in backward areas such as Andaman and Nicobar Islands, Arunachal Pradesh and some parts of Madhya Pradesh, where timber is available in sufficiently large quantities.

2.2. The technology for manufacture of plywood is available within the country. Foreign collaboration is not considered necessary. A unit with a capacity of 10,000 cubic metres. (25 lakh sq. metres) is considered economical. However, units upto a capacity of 20,000 to 40,000 cubic metres. (5 lakh sq. metres to 100 lakh sq. metres) may be put up in areas where timber is available in relatively large quantities. Integration of plywood manufacture with other wood panel products such as fibre board and particle board is considered

desirable from economic and technological reasons.

2.3. Plant and machinery like boilers, hydraulic presses, veneer driers, double dimension saws, drum sanders, etc. are available indigenously. Some of the machines like peeling lathes, veneer slicers, splicers, belt sanders, etc. are still imported. About 60% of the plant and equipment required by the plywood industry is available indigenously.

FIBRE BOARD (HARD BOARD AND INSULATION BOARDS)

Present Status

1.1. There are, at present, 3 units with licensed/installed capacity of 40,000 tonnes per annum. Additional capacity of 22,000 tonnes is covered by letters of intent. The existing plants are located in Maharashtra, Kerala and Assam. Production during the last three years was as follows:

1973	24,279 tonnes
1974	23,346 tonnes
1975	18,058 tonnes

1.2. Import of fibre board during the last three years was negligible. Exports during these three years were as follows:

1972-73	Rs. 26.95 lakhs
1973-74	Rs. 82.00 lakhs
1974-75	Rs. 170.86 lakhs

1.3. The main raw materials required by the fibre board industry are wood waste residues and forest wastes. Some quantities of synthetic resins are also required. The fibre board industry does not require any imported raw material.

Future Scope

2.1. It was earlier estimated that the demand for this item by 1978-79 would be 60,000 tonnes. However keeping in view the recent developments, demand by 1978-79 may not exceed 40,000 tonnes. Additional capacity would be achieved from the expansion of the existing plants and by setting up new units in backward

areas where wood waste is available in abundance.

2.2. The technology for manufacture of fibre board is available within the country and foreign collaboration is not considered necessary. A unit with a capacity of 25,000 tonnes per annum is considered economical. Integration of fibre board manufacture with the manufacture of other wood panel products is considered desirable from the point of view of economic viability.

2.3. Plant and equipment for the manufacture of fibre board are largely imported.

PARTICLE BOARD

Present Status

1.1. There are, at present, 8 plants located in Uttar Pradesh, Maharashtra, Karnataka, Tamil Nadu, Madhya Pradesh and Kerala manufacturing particle board with an installed capacity of 71,300 tonnes. An additional capacity of 4500 tonnes is covered by letters of intent. Production during last three years was as follows:

1973	10,300 tonnes
1974	8,735 tonnes
1975	6,955 tonnes

1.2. The capacity utilisation in this industry is very low. The main raw materials are wood waste residues, forest management wastes and urea formaldehyde and phenol formaldehyde resins. All the raw materials are available indigenously.

Future Scope

2.1. It was earlier estimated that the demand for this item by 1978-79 would be 50,000 tonnes. However, according to the present estimates, this may be put around 20,000 tonnes. Based on this, and having regard to the low utilisation of the existing capacity, there is no scope for licensing additional capacity. However, export oriented schemes or proposals for setting up capacities in backward areas, where wood waste is available in plenty may be considered on merits.

2.2. The technology for manufacture of particle board is available within the country and foreign collaboration is not considered necessary. Integration of particle board manufacture with the manufacture of other wood panel products such plywood and fibre board, is considered desirable for economic and technological reasons.

SAFETYMATCHES

Present Status

1.1. There are five plants in the organised sector with

an installed capacity of 395 crore boxes of 50 sticks. The production of safety matches during the last three years was as follows:

1973	425.37 crore boxes of 50 sticks
1974	436.73 crore boxes of 50 sticks
1975	373.94 crore boxes of 50 sticks

In addition, there is considerable production in the small scale sector.

1.2. Production of safety matches in the industry as a whole for mechanised sector and non-mechanised sector as reported by the Central Board of Revenue, Ministry of Finance, for the last three years was as follows:

	Unit: Crore Boxes 50 sticks		
	Mechanised	Non-Mecha-	Total
	Sector (Large scale)	Sector (Small scale)	
1972-73	418.6	468.4	887.0
1973-74	448.1	569.1	1017.2
1974-75	425.2	675.4	1100.6

1.3. Export of matches during the last three years was as follows:

1972-73	Rs. 73.98 lakhs
1973-74	Rs. 25.92 lakhs
1974-75	Rs. 30.23 lakhs

1.4. The main raw materials required by the safety match industry are timber, red phosphorous, potassium chlorate, sulphur and blue match paper. Indigenous production of potassium chlorate and red phosphorous was not adequate so far. However, production of these essential items is being stepped up to meet the growing demand of the safety match industry. The other raw material viz. sulphur is imported.

Future Scope

2.1. Future development of this industry is exclusively reserved for small scale sector. It has been estimated that the requirement of safety matches would rise to 1250 crore boxes of 50 sticks by 1978-79. It should be possible to meet this demand by increasing the capacity in the small scale sector.

2.2. Technology for manufacture of safety matches is available within the country. A semi-machanised unit can be set with an investment in plant and equipment within Rs. 10 lakhs, which is available from indigenous sources.

CIGARETTES

Present Status

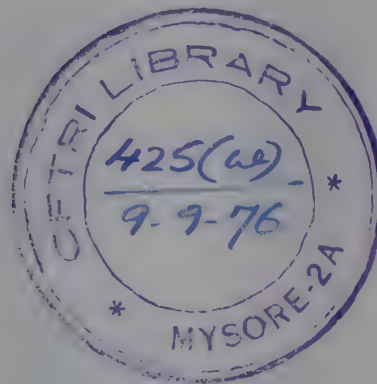
1.1. There are 18 units engaged in the production of cigarettes with a licensed capacity of 10,258.8 crore pieces. The estimated production in 1975 was 5967.4 crore pieces as against 6240 crore pieces in 1974. The production has gone down due to poor off-take of the costlier brands and the increase in prices.

Future Scope

2.1. Letters of intent have been issued to 15 parties

including six State Industrial Development Corpn. for a total capacity of 6330 crores pieces per annum. Some of these letters of intent are at various stages of implementation.

2.2. The demand for cigarettes is estimated to be 10,000 crore pieces by 1978-79, for which a capacity of 15,000 crore pieces is required. As the capacity covered by licences and letters of intent is adequate to meet the demand, no additional capacity will be approved during the year.



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